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ABSTRACT

This report includes an overview of the Dallas Independent School District's Department of Research and Evaluation, along with its goals, budget, and senior staff members. The bulk of the report is comprised of 15 individual interpretative analyses of the Department's 1979-80 research and evaluation reports. Interpretative analyses are performed on reports in the following areas: (1) system-wide achievement data: (2) system-wide achievement data, Basic Objectives Assessment Tests: (3) system-wide achievement data, Texas Assessment of Basic Skills: (4) system-wide achievement data, Partners in Learning: (5) teacher selection and evaluation processes: (6) Texas Education Agency's accreditation process: (7) evaluation of state compensatory education projects: (8) evaluation of the Emergency School Aid Act programs: (9) results of the Title IV-C programs: (10) results of the implementation of Title I programs: (11) special education evaluation studies: (12) alternative education evaluation: (13) implementation of the system-wide testing program: (14) development of tests for instructional accountability: and (15) system-wide context data. (RL)

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INTERPRETATIVE ANALYSES OF 1979-80 RESEARCH AND EVALUATION REPORTS

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DEPARTMENT OF RESEARCH AND EVALUATION

dallas independent school district

Linus Wright, *General Superintendent*

TM 810 136

Dallas Independent School District
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William J. Webster
Associate Superintendent

Department of Research and Evaluation
C. LaVor Lym
Deputy Assistant Superintendent

INTERPRETIVE ANALYSES OF 1979-80 EVALUATION REPORTS

The reports collected in this volume were completed during the 1979-80 school year by the Department of Research and Evaluation and were presented through the Program Evaluation Committee to the Board of Education.

Dallas, Texas
February 1981

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OVERVIEW, OBJECTIVES, BUDGET, AND STAFFING OF THE DEPARTMENT OF RESEARCH AND EVALUATION

OVERVIEW OF THE DEPARTMENT OF RESEARCH AND EVALUATION

The major purposes of the Department of Research and Evaluation are to provide useful information to decision-makers and to serve as an accountability agent. The process requires cooperative action by decision-makers (i.e., curriculum developers, teachers, and administrators) and evaluators. The decision-maker's role is to weigh the evidence provided him by the evaluator and render judgment about what course of action to take in the situation confronting him. Because the decision-maker generally does not have the time or technical skill necessary to gather and analyze the objective data necessary to make informed decisions, the evaluator provides him with information concerning the reason action must be taken and alternative strategies that are open. Thus, it is essential that the evaluator know enough about the decision-making process and the information used in reaching a given decision, to identify the scientifically sound and useful information needed to reach an objective decision. Through the aforementioned process, the educator becomes accountable for his decisions.

In implementing data collection and analysis activities, the evaluator shares an obligation with the educator; he must provide information which is valid and objective. Objectivity requires that the evaluator must be free to identify and investigate the viewpoints of a given decision-maker's clients, constituents, and other interested parties. The evaluator has four broad obligations in the evaluation process: (a) to focus on evaluative information to be provided; (b) to collect, organize, and analyze this information; (c) to administer evaluative activities; and (d) to provide relevant evaluative feedback to decision-makers at all levels.

In order to provide the services alluded to above, fourteen general classes of activities are implemented. These activities include:

a. Management - the obtaining, disbursing, and quality control of material and personnel resources necessary to meet the information needs of the District.

b. Testing - the operation of the basic data acquisition system in such a manner as to insure reliable, valid, and objective instrumentation and reporting.

c. Instrument development - the development and validation of necessary instrumentation.

d. Context evaluation - the provision of baseline information that delineates the environment of interest, describes desired and actual outcomes, identifies unmet needs and unused opportunities, and diagnoses problems that prevent needs from being met.

e. Input evaluation - the provision of information for determining optimum methods of resource utilization for accomplishing set goals.

f. Process evaluation - the provision of information for determining defects in procedural design or implementation during program implementation stages and for aiding in the interpretation of product evaluation data.

g. Product evaluation - the provision of information for determining the relative success of educational programs. Product evaluation may be interim or summative and generally addresses the extent to which programs meet their objectives, the relative effects of alternative program, and/or program cost-effectiveness.

h. Applied research - the provision of information pertaining to interactions between student characteristics, teacher characteristics, and/or instructional strategies.

i. Basic research - the provision of information pertaining to fundamental relationships affecting student learning.

j. Data processing - the operation of the basic data retrieval and analysis system.

k. Planning services - the provision of technical assistance to District and project management in planning and managing projects and programs.

l. Ad hoc information - the provision of requested information on an ad hoc basis to decision-makers.

m. Research consultation - the provision of design and analysis help to District personnel in implementing their own research and evaluation projects.

n. Proposal development - the development of proposals, or the evaluation sections of proposals, for outside funds. In all cases outside funds should be a means to an end, not an end in themselves.

OBJECTIVES

		BUDGET	
		General Funds	Other Funds
1.0	Management Management of the planning, organization, and staffing of the Department.	95,880	0
2.0	Operation Provide for the day-to-day functioning of the Department.	194,116	5,950
3.0	System-wide Test Implementation Plan and implement the District's System-wide Testing Program and coordinate administration of the Texas Assessment of Basic Skills.	303,206	0
4.0	Test Development Construct/adopt and validate those tests that are needed to provide District publics, managers, and instructional personnel with feedback relative to the performance of District students.	217,478	0
5.0	Management Research Collect, analyze, and report data relative to the cost-effective operation of the District.	106,286	0
6.0	Context Evaluation Assess the District's basic instructional program at the school, subdistrict, and District levels.	295,301	0

		BUDGET	
		General Funds	Other Funds
7.0	Accountability & Accreditation Coordinate the data collection and analysis activities for the Texas Education and Southern Accreditation Association Models, and assist schools in the implementation of campus-level planning.	148,841	0
8.0	Federal Program Evaluation Provide context, process, and product evaluations of extra-District-funded developmental and instructional programs.	98,841	708,979
9.0	Special Program Evaluation Provide context, process, and product evaluations of Magnet High Schools, Skyline CDC, Academies/Vanguards, Lincoln High School Renewal, developmental programs in East Oak Cliff, Special Education, and Bilingual Education.	317,860	173,692
	TOTAL	$1,861,502	$888,621

BUDGET OF THE DEPARTMENT OF RESEARCH AND EVALUATION

BUDGET SUMMARY

	General Funds	Other Funds
Payroll	1,463,711	836,802
Supplies and Materials	270,721	34,104
Equipment	84,570	0
Contracted Services	9,500	11,765
Other	33,000	5,950
TOTAL	1,861,502	888,621

POSITIONS AUTHORIZED

Professional		
Deputy Assistant Superintendent	1	0
Executive Evaluator	5	0
Principal Evaluator/Analyst	5	2
Senior Evaluator/Analyst	16	5
Evaluator/Planner	4	2
Assistant Evaluator/Planner	25 1/2	23 3/8
Programmer	2	2
TOTAL	58 1/2	34 3/8
Classified	20	13

SENIOR STAFF OF THE RESEARCH AND EVALUATION DEPARTMENT OF THE DALLAS INDEPENDENT SCHOOL DISTRICT
1979-80

Administration and Management:

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INTERPRETIVE ANALYSES

An Interpretive Analysis of System-wide Achievement Data, 1979-80

George H. Olson

This report summarizes a considerable amount of data published separately in three other reports on District norm-referenced achievement. One of these other reports (Whitmore, Meier, Olson, & Marcus, 1980) is actually a series of volumes profiling achievement for each school and subdistrict in the DISD. A system-wide summary volume is also included in that series. The other two reports provide longitudinal perspectives of District achievement over the past four years. In one of those reports (Meier & Berry, 1980a) achievement is examined by year within grade level over the years, 1976-1980. In the other report (Meier & Berry, 1980b) achievement of the same groups of students is tracked across grade levels over the years, 1976-1980. It is expected that the reader who desires greater detail on current and past achievement within particular schools, grade levels, and/or ethnicities will obtain the particular reports of interest. In this report only the major highlights of those separate reports can be given attention.

Changes in the Testing Program

Some major changes occurred in the 1979-80 norm-referenced testing program. Since the changes affected the types of achievement statistics reported, they will be summarized briefly here. In 1979-80 the District opted to administer the Tests of Achievement and Proficiency (TAP) to high school students (grades 9-11) instead of the Iowa Tests of Educational Development (ITED), which had been administered at these grade levels in previous years. Several factors motivated this decision (Alexander & Arrasmith, 1979) paramount among which were (1) that the TAP was a newer test and hence had available more recent norms, and (2) after careful review it was determined that the skills measured by the TAP more nearly reflected the instructional goals and objectives of the District.

Also in 1979-80 the District began using more recent (1978) norms for the Iowa Tests of Basic Skills (ITBS) administered in grades 1-8. Norms used in previous years were computed from a 1971 national standardization program.

A final change, important here, involved the Metropolitan Readiness Test (MRT) administered to kindergartners. In previous years local school personnel were allowed the option of administering either Level 1 or Level 2 of the MRT even though according to the publisher Level 2 was designed specifically to be used at the end of kindergarten or at the beginning of grade 1. Given this flexibility, some schools chose to administer Level 1 while the majority gave Level 2. Since the skills measured by the two levels appeared to be quite different and, further, since assignment appeared to be more dependent upon children's perceived ability level than upon instructional focus, there was no feasible way to average scores from the two levels or even compare scores on the two levels (cf., Olson & Meier, 1979). For these reasons, in 1979-80, it was decided that all schools should administer only Level 2 of the MRT at the end of the school year. A result of this decision is that District-wide summaries of performance on the MRT in 1979-80 cannot be compared with MRT performance in previous years.

The decisions to change norms for the ITBS and change test batteries in high school also posed problems for tracking achievement trends over years. Fortunately the publisher of the ITBS provided tables for converting scores based on 1971 norms to scores based on 1978 norms at grades 3 through 8. Tables were not provided for converting scores at grades 1 and 2, however. Consequently, to accomplish conversion at these grade levels a locally-designed equating study had to be performed (Curry, 1980a). This project was completed early in 1980 and resulted in tables for converting old scores to new scores in reading and mathematics. Constraints on the amount of additional testing time available prohibited the inclusion of the language subtests of the ITBS in the equating study. Thus, longitudinal data on language achievement in grades 1 and 2 are not available.

A second study was undertaken to construct tables for converting ITED scores to TAP scores (Curry, 1980b). This effort failed, however. The two test batteries were just too dissimilar to yield comparable scores. For this reason, any attempts to compare 1979-80 high school performance to performance on the ITED in previous years would be meaningless.

National and Large-City Norms

Large-city norms are a subset of the national norms based upon data from only those students in large-city school districts. In earlier years large-city norms were not too different from national norms. However, when the two sets of more recent norms, on both the ITBS and TAP, were examined closely it was evident that a much larger difference existed between them than had existed in the past. While detailed technical and demographic information concerning the norming samples was not available at the time this report was written, it is presumed that the large difference reflected, among other things, a greater predominance of educationally disadvantaged students in large cities. To some undetermined extent, then, large-city norms control for the myriad of problems affecting the nation's cities and their school systems. The reasons notwithstanding, the result is that performance when compared to large-city norms will generally appear considerably more favorable than when compared to national norms. National norms, then, represent a more severe standard of comparison.

In this report, as in the series of individual school reports (Whitmore, et al., 1980), 1979-80 achievement is summarized in terms of both national and large-city norms. Both comparisons are important for a full appreciation of the District's achievement status. On the one hand it is informative to note how District students compare with students throughout the country without regard to type of community, while on the other hand it may be important to realize that Dallas schools are, in many ways, more typical of those found in other large cities than to school systems in general. In this latter case, the large-city norms may represent a more meaningful standard of comparison.

Although it appeared useful to present current achievement status in terms of both national and large-city norms, it is obvious that either set of norms would be equally informative in presenting achievement trends, for here it is the pattern of achievement growth and not relative status that is of interest. Therefore, in this report, as in the two longitudinal reports cited earlier, achievement trends are summarized in terms of national norms.

Achievement in Kindergarten

The District's kindergartners were administered Level 2 of the Metropolitan Readiness Test (MRT) in spring 1980. On the MRT performance is reported in stanines and, for the pre-reading composite subtest only, median percentiles. Stanines are further grouped into three categories: low (stanines 1-3), average (stanines 4-6), and high (stanines 7-9). A summary of MRT performance showing median percentiles on the pre-reading composite and the percent of pupils classified as average or above average in pre-reading and quantitative skills is given in Table 1. District-wide pre-reading performance in 1979-80 was somewhat below the national average, although a large majority of District children were classified as average or above average in both pre-reading and quantitative skills. The median pre-reading performance for Whites was nearly twice that of minority students, both groups of which performed similarly. However, within all three ethnic groups, a majority of the pupils could be classified as average or above average.

Achievement in the Grade Levels

At the end of the 1978-79 school year, District students in grades 1 through 8, as measured by the Iowa Tests of Basic Skills, were achieving, on the average, at the national 27th and 26th percentiles in reading and mathematics, respectively. In other words, in the national norming sample in 1978, approximately 75 percent of the students at these grade

Table 1

Median Percentiles in Pre-reading and Percent Average or Above Average in Pre-reading and Quantitative Skills on the Metropolitan Readiness Test

	All Races			White			Black			Hispanic		
	R		Q	R		Q	R		Q	R		Q
Subdistrict	Md	%	%	Md	%	%	Md	%	%	Md	%	%
Northwest	38	65	69	71	87	88	27	55	62	30	61	61
Northeast	53	77	89	68	88	88	43	69	73	33	62	67
Southeast	47	75	74	53	81	81	38	66	65	48	77	75
Southwest	45	73	74	57	80	82	38	69	69	38	72	71
East Oak Cliff	36	69	65	—	—	—[a]	36	69	65	39	74	77
Total District	43	71	72	61	84	85	36	67	67	36	67	67

[a] There were too few White students in East Oak Cliff to compute reliable summary statistics.

Note. R = Reading, Q = Quantitative, Md = Median Percentile, % = Percent of students at or above average.

levels scored higher than the average student in the DISD. However, when compared with students in other large-city school districts, DISD students, on the average, achieved at the 51st and 47th percentile in reading and mathematics. Thus, in terms of large-city norms, the District looked similar to the average large-city school district.

By the end of the 1979-80 school year, District-wide achievement had increased two percentile points in reading and six percentile points in mathematics, according to national norms. In terms of large-city norms, these increases were translated into a one percentile gain in reading and a nine percentile gain in mathematics.

These gains in median percentile are shown in Table 2 where the same statistics are also presented for each of the District's three major ethnic populations. The table illustrates that gains in median percentile were achieved by all three ethnic groups.[1] Furthermore, the gains made by District minority students in mathematics were generally impressive.

Table 2 also shows that important gains were made in the percentages of students of all ethnicities scoring at or above the national (and large-city) median (50th) percentile. Again, gains were noted among all ethnic groups. In fact, in comparison to large-city school districts, the District had a higher than average percentage of higher-scoring students in all subject areas in 1979-80.

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[1] For reasons noted in the footnote to Table 1, gains were not recorded in language.

Table 2

Median Percentiles and Percentages At or Above the 50th Percentile for Grades 1 through 8

	All Races		White		Black		Hispanic	
	78-79	79-80	78-79	79-80	78-79	79-80	78-79	79-80
READING								
Median %tile								
Large City	51	52	74	77	39	43	41	43
National	27	29	48	51	19	22	20	23
Pct. > 50th %tile								
Large City	51	53	73	74	40	44	41	44
National	26	30	48	52	16	21	16	20
LANGUAGE								
Median %tile								
Large City	—[a]	58	—	77	—	49	—	47
National	—	35	—	56	—	26	—	26
Pct. > 50th %tile								
Large City	—	56	—	75	—	48	—	47
National	—	36	—	57	—	28	—	26
MATHEMATICS								
Median %tile								
Large City	47	56	74	77	28	41	39	48
National	26	32	51	54	14	22	22	27
Pct. > 50th %tile								
Large City	48	54	69	74	35	43	43	49
National	32	35	52	56	21	25	26	29

[a] Scores for grades 1 and 2 in 1978-79 had to be converted in accordance with a locally conducted test-equating study. This study did not involve the language subtest, however. Thus, no language-test comparison scores for 1978-79 are given in this table which summarizes performance in grades 1-8.

A more detailed presentation of 1979-80 achievement, as compared to 1978-79 achievement, is displayed in Tables 3 and 4 where medians and percentages of higher-achieving students are given by grade level and ethnic classification. Where comparisons were possible, Table 3 illustrates that, with only a few exceptions, medians in 1979-80 were equal to or greater than those for 1978-79. The exceptions occurred only within the primary grades. Thus, at grade 1 the 1979-80 median declined for all three groups in mathematics and for Black and Hispanic students in reading. At grade 3 a slight decline in language achievement was noted for White students. Aside from these few exceptions, increases were noted nearly everywhere else.

Table 4 reinforces this finding. Nearly all entries in the table reflect appreciable gains in the percentages of higher-achieving students in reading, language, and mathematics. In some instances these gains are particularly noteworthy. Thus, in reading, Whites at grade 1, all groups at grade 2, Blacks and Hispanics at grade 4, Hispanics at grade 5, all groups at grade 6, and Whites at grade 8 all showed increases of five percent or more. In language, increases of five percent or more were noted for all groups at grades 4 and 5, Whites at grade 6, and Whites and Blacks at grades 7 and 8. Similar increases were observed among Whites and Blacks at grade 3, Blacks and Hispanics at grade 4, Whites and Blacks at grade 5, and all groups at grade 6 in mathematics.

Percentages of students scoring above the national and large-city medians in 1979-80 are graphically displayed in Figures 1 through 4 for elementary, intermediate, middle, and high schools. Each full bar in the

Table 3

District-wide Median National and Large-city Percentiles by Grade Level

	All Races		White		Black		Hispanic	
	78-79	79-80	78-79	79-80	78-79	79-80	78-79	79-80
READING								
Grade 1								
LC	60	60	68	74	60	56	51	46
Nat	43	41	51	59	43	39	35	31
Grade 2								
LC	52	56	69	74	48	52	40	44
Nat	32	34	48	54	29	32	22	25
Grade 3								
LC	55	51	76	74	45	45	41	41
Nat	32	29	53	51	24	24	21	21
Grade 4								
LC	45	55	75	81	33	39	36	46
Nat	29	29	48	55	15	19	17	23
Grade 5								
LC	49	49	79	79	38	40	40	43
Nat	23	23	49	49	17	18	18	20
Grade 6								
LC	44	51	75	80	32	34	34	44
Nat	20	25	44	50	14	15	15	20
Grade 7								
LC	37	48	75	77	23	34	25	34
Nat	15	22	44	45	9	14	10	14
Grade 8								
LC	41	51	82	86	24	37	33	41
Nat	16	23	46	53	8	14	12	16
Grade 9								
LC	--[a]	44	--	72	--	29	--	39
Nat	--	24	--	51	--	14	--	20
Grade 10								
LC	--	42	--	70	--	25	--	41
Nat	--	25	--	54	--	13	--	24
Grade 11								
LC	--	42	--	67	--	24	--	37
Nat	--	27	--	55	--	13	--	23

(continued on next page)

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[a] The Tests of Achievement and Proficiency (TAP) were administered at grades 9, 10, and 11 for the first time in 1979-80. Since scores on these tests were not comparable to those on the tests used in the previous year, data for 1978-79 are not reported for these grade levels.

Table 3 (continued)

District-wide Median National and Large-city
Percentiles by Grade Level

	All Races		White		Black		Hispanic	
	78-79	79-80	78-79	79-80	78-79	7980	78-79	79-80
LANGUAGE (WRITTEN EXPRESSION)[b]								
Grade 1								
LC	--[c]	58	--	65	--	58	--	44
Nat	--	41	--	51	--	41	--	26
Grade 2								
LC	--	59	--	70	--	59	--	44
Nat	--	40	--	53	--	40	--	26
Grade 3								
LC	66	61	81	79	58	52	55	52
Nat	46	41	65	63	38	32	35	32
Grade 4								
LC	58	61	76	80	41	50	44	53
Nat	35	37	55	62	22	28	24	31
Grade 5								
LC	56	60	76	79	38	47	50	53
Nat	32	36	53	57	20	26	28	30
Grade 6								
LC	49	56	73	79	31	42	42	49
Nat	26	31	47	56	16	21	21	26
Grade 7								
LC	39	48	70	76	24	33	26	39
Nat	20	26	42	50	12	18	14	20
Grade 8								
LC	37	49	71	78	21	33	33	39
Nat	18	25	43	54	10	16	16	19
Grade 9								
LC	--	39	--	70	--	23	--	36
Nat	--	23	--	50	--	12	--	20
Grade 10								
LC	--	42	--	70	--	25	--	41
Nat	--	25	--	54	--	13	--	24
Grade 11								
LC	--	42	--	67	--	24	--	37
Nat	--	27	--	55	--	13	--	23

(continued on next page)

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[b] For grades 1-8, entries reflect scores on the ITBS language subtest; for grades 9-11, entries reflect scores on the TAP Written Expression subtest.

[c] Scores for grades 1 and 2 in 1978-79, had to be converted in accordance with a locally-conducted test-equating study. This study did not involve the language subtest, however. Thus, no language-test comparison scores for 1978-79 are given.

Table 3 (continued)

District-wide Median National and Large-city Percentiles by Grade Level

	All Races		White		Black		Hispanic	
	78-79	79-80	78-79	79-80	78-79	79-80	78-79	79-80
MATHEMATICS								
Grade 1								
LC	72	63	79	76	68	56	63	47
Nat	56	44	66	61	50	38	44	33
Grade 2								
LC	58	63	77	77	52	58	52	52
Nat	36	41	57	59	31	36	31	31
Grade 3								
LC	48	58	78	78	32	48	43	53
Nat	27	35	58	58	16	27	23	31
Grade 4								
LC	39	55	74	77	22	39	30	51
Nat	19	31	50	54	9	19	13	28
Grade 5								
LC	38	53	71	77	24	38	35	49
Nat	18	28	45	53	9	18	16	26
Grade 6								
LC	41	51	70	78	21	32	35	51
Nat	20	26	43	54	7	14	16	26
Grade 7								
LC	28	44	71	73	14	31	21	39
Nat	11	22	44	46	4	12	7	18
Grade 8								
LC	28	45	72	77	11	30	26	40
Nat	11	22	45	51	3	13	10	19
Grade 9								
LC	--	39	--	68	--	31	--	35
Nat	--	26	--	50	--	20	--	23
Grade 10								
LC	--	41	--	70	--	27	--	37
Nat	--	29	--	56	--	19	--	26
Grade 11								
LC	--	42	--	67	--	24	--	37
Nat	--	27	--	55	--	13	--	23

Table 4

District-wide Percentages of Students At or Above the National 50th Percentile by Grade Level

	All Races		White		Black		Hispanic	
	78-79	79-80	78-79	79-80	78-79	79-80	78-79	79-80
READING								
Grade 1	39	41	52	57	36	37	29	27
Grade 2	28	36	49	56	20	30	16	23
Grade 3	28	31	51	52	18	22	18	21
Grade 4	24	30	49	53	12	19	13	21
Grade 5	24	26	49	49	13	15	13	18
Grade 6	21	28	44	51	10	17	13	18
Grade 7	21	22	43	45	10	12	12	14
Grade 8	22	25	46	51	9	13	13	16
Grade 9	--[a]	25	--	50	--	10	--	17
Grade 10	--	29	--	55	--	10	--	20
Grade 11	--	31	--	54	--	10	--	19
LANGUAGE (WRITTEN EXPRESSION)[b]								
Grade 1	--[c]	39	--	54	--	38	--	25
Grade 2	--	40	--	53	--	38	--	26
Grade 3	45	43	62	62	37	35	36	35
Grade 4	35	39	57	62	23	28	26	31
Grade 5	31	38	53	60	20	28	21	30
Grade 6	27	31	46	55	17	20	19	22
Grade 7	22	28	42	52	12	17	15	19
Grade 8	22	28	43	53	11	17	15	19
Grade 9	--	28	--	52	--	14	--	21
Grade 10	--	32	--	57	--	15	--	22
Grade 11	--	33	--	56	--	12	--	20

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[a] The Tests of Achievement and Proficiency (TAP) were administered at grades 9, 10, and 11 for the first time in 1979-80. Since scores on these tests were not comparable to those on the tests used in the previous year, data for 1978-79 are not reported for these grade levels.

[b] For grades 1-8, entries reflect scores on the ITBS Language subtest; for grades 9-11, entries reflect scores on the TAP Written Expression subtest.

[c] Scores for grades 1 and 2 in 1978-79, had to be converted in accordance with a locally conducted test-equating study. This study did not involve the Language subtest, however. Thus, no language-test comparison scores for 1978-79 are given.

Table 4 (continued)

District-wide Percentages of Students At or Above
the National 50th Percentile by Grade Level

	All Races		White		Black		Hispanic	
	78-79	79-80	78-79	79-80	78-79	79-80	78-79	79-80
				MATHEMATICS				
Grade 1	56	46	69	62	51	40	48	37
Grade 2	41	44	59	63	33	36	34	36
Grade 3	31	38	52	59	20	29	28	30
Grade 4	29	33	52	54	17	22	21	29
Grade 5	24	33	47	54	13	22	18	30
Grade 6	23	31	45	54	12	19	18	24
Grade 7	21	25	44	48	9	13	13	17
Grade 8	23	26	47	51	9	13	16	19
Grade 9	--	25	--	52	--	9	--	16
Grade 10	--	25	--	49	--	7	--	16
Grade 11	--	30	--	54	--	9	--	16

figures represents the percentage of students at or above the national (left side) and large-city (right side) median. The top division of each bar represents the percentage (the number printed inside the division) of students at or above the corresponding 75th percentile. In the national norming samples the percentages of students in each division is equal, with the total bar representing 50 percent.

When all ethnicities are considered together, achievement in the primary grades compared favorably with that of the national norming sample, and was superior to that of the sample of large-city school districts. As grade-level configuration increased, however, District achievement compared less favorably with national norms, but remained superior when compared to large-city norms.

Within ethnic groups Figures 1 through 4 show that a greater percentage of the District's White students were included among the national sample's highest scoring group of students at all school levels in all but one tested area (reading, grades 7-8). Furthermore, among large-city school districts, approximately half the District's White students were included among this highest scoring group at all levels, in all areas. Although their percentages were appreciably lower, Black and Hispanic students in the primary grades still compared fairly favorably with the national sample and much more favorably with the large-city sample. At the higher grade-configuration levels, however, minority student achievement did not compare well with the national sample, although it tended to reflect the achievement distribution in the large-city school districts.

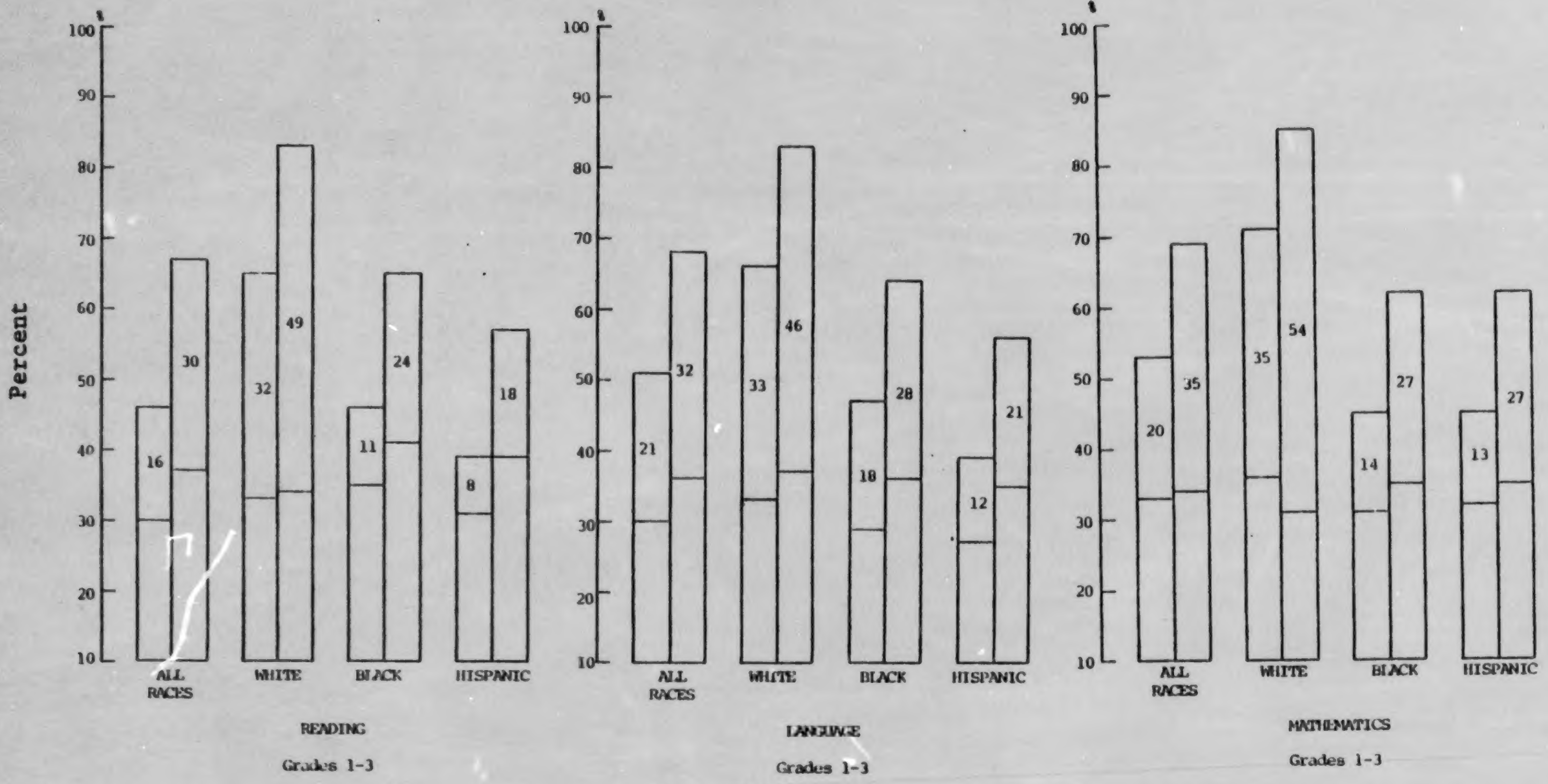

Figure 1

Percent of Students in Grades 1-3 At or Above the 50th and 75th Percentile

Note. Each total bar represents the percent above the 50th percentile; the upper division of each bar represents the percent above the 75th percentile. The left member of each pair of bars corresponds to national norms; the right member, to large-city norms.

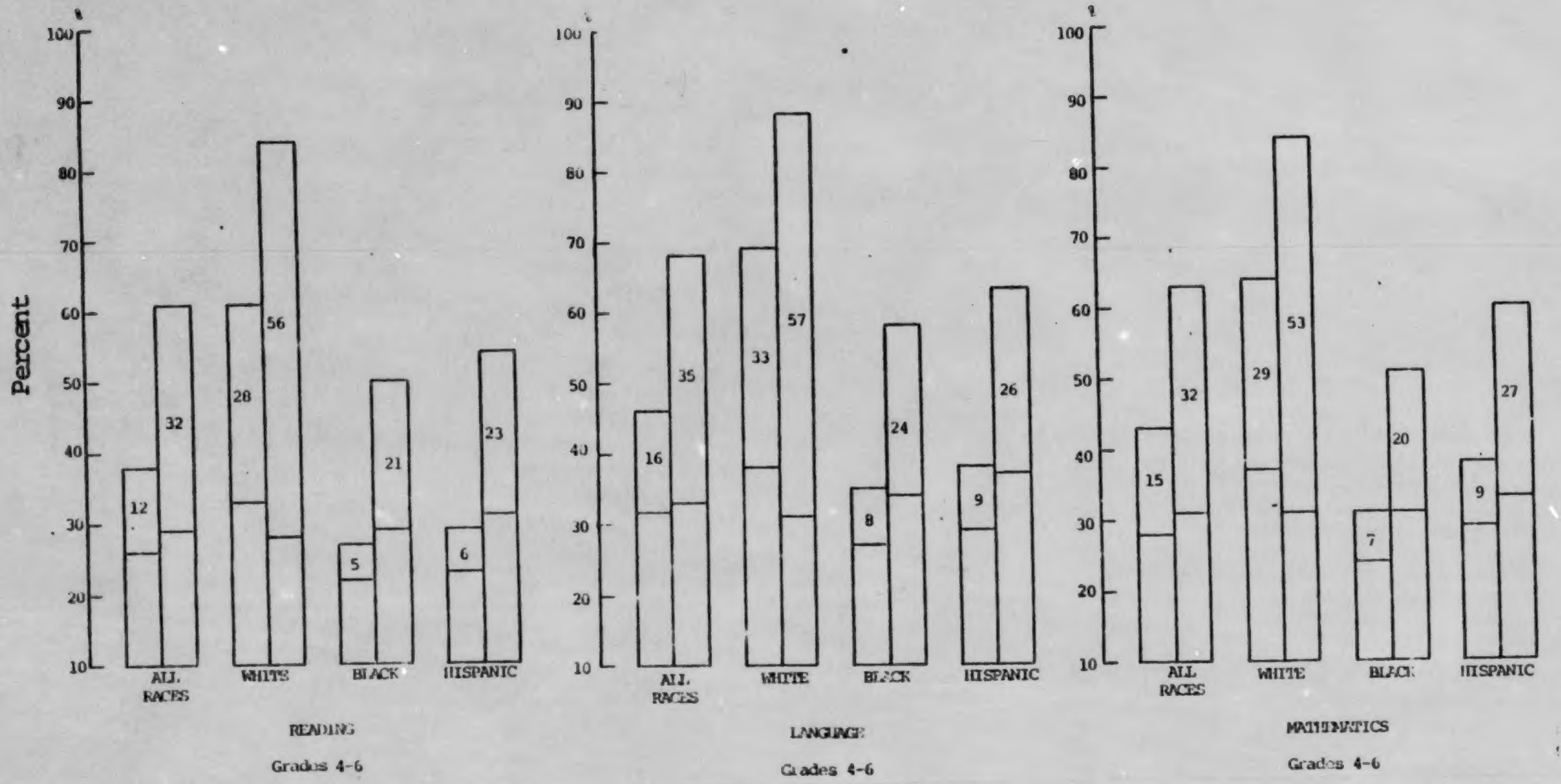

Figure 2

Percent of Students in Grades 4-6 At or Above the 50th and 75th Percentile

Note. Each total bar represents the percent above the 50th percentile; the upper division of each bar represents the percent above the 75th percentile. The left member of each pair of bars corresponds to national norms; the right member, to large-city norms.

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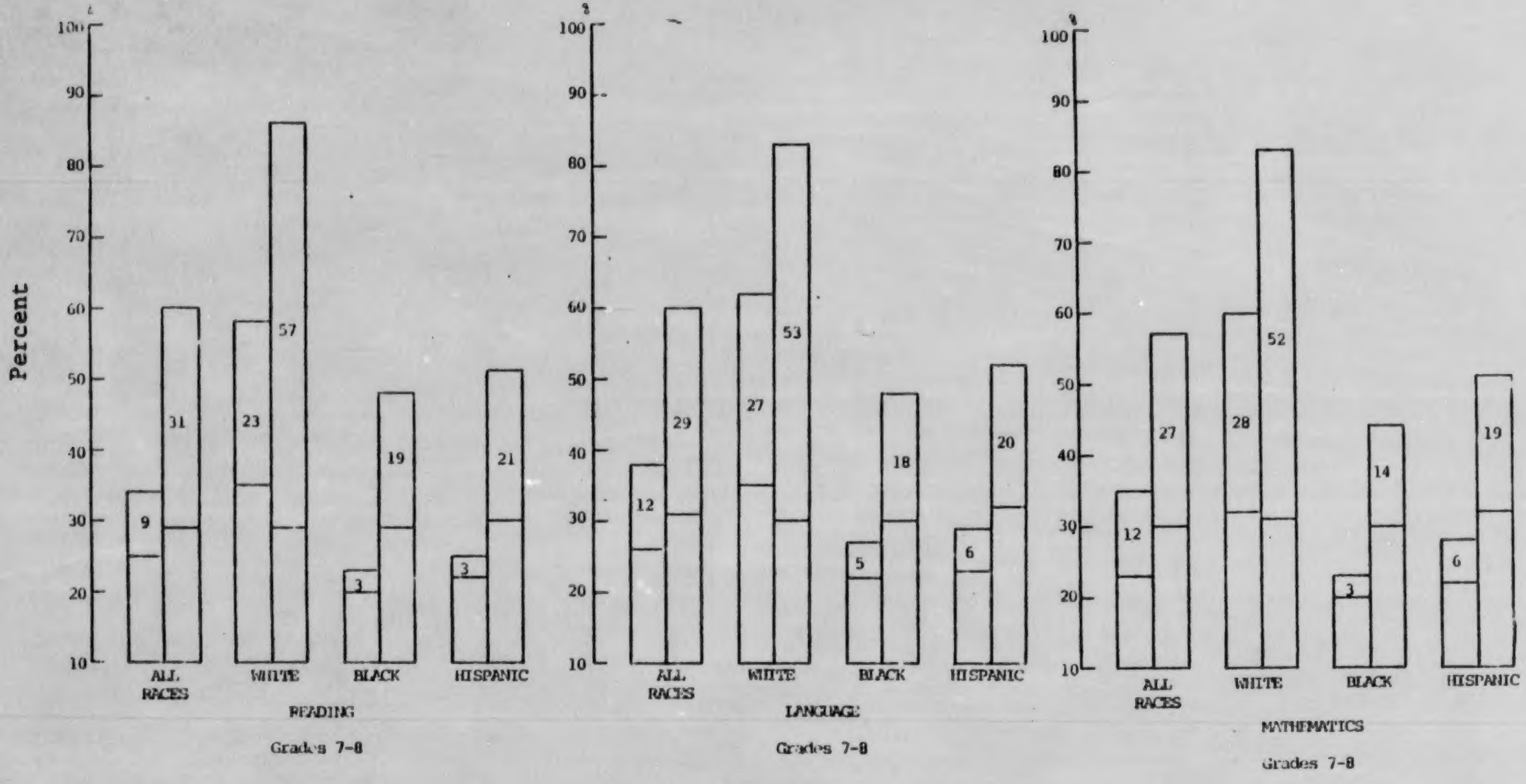


Figure 3

Percent of Students in Grades 7-8 At or Above the 50th and 75th Percentile

Note. Each total bar represents the percent above the 50th percentile; the upper division of each bar represents the percent above the 75th percentile. The left member of each pair of bars corresponds to national norms; the right member, to large-city norms.

61-I-008

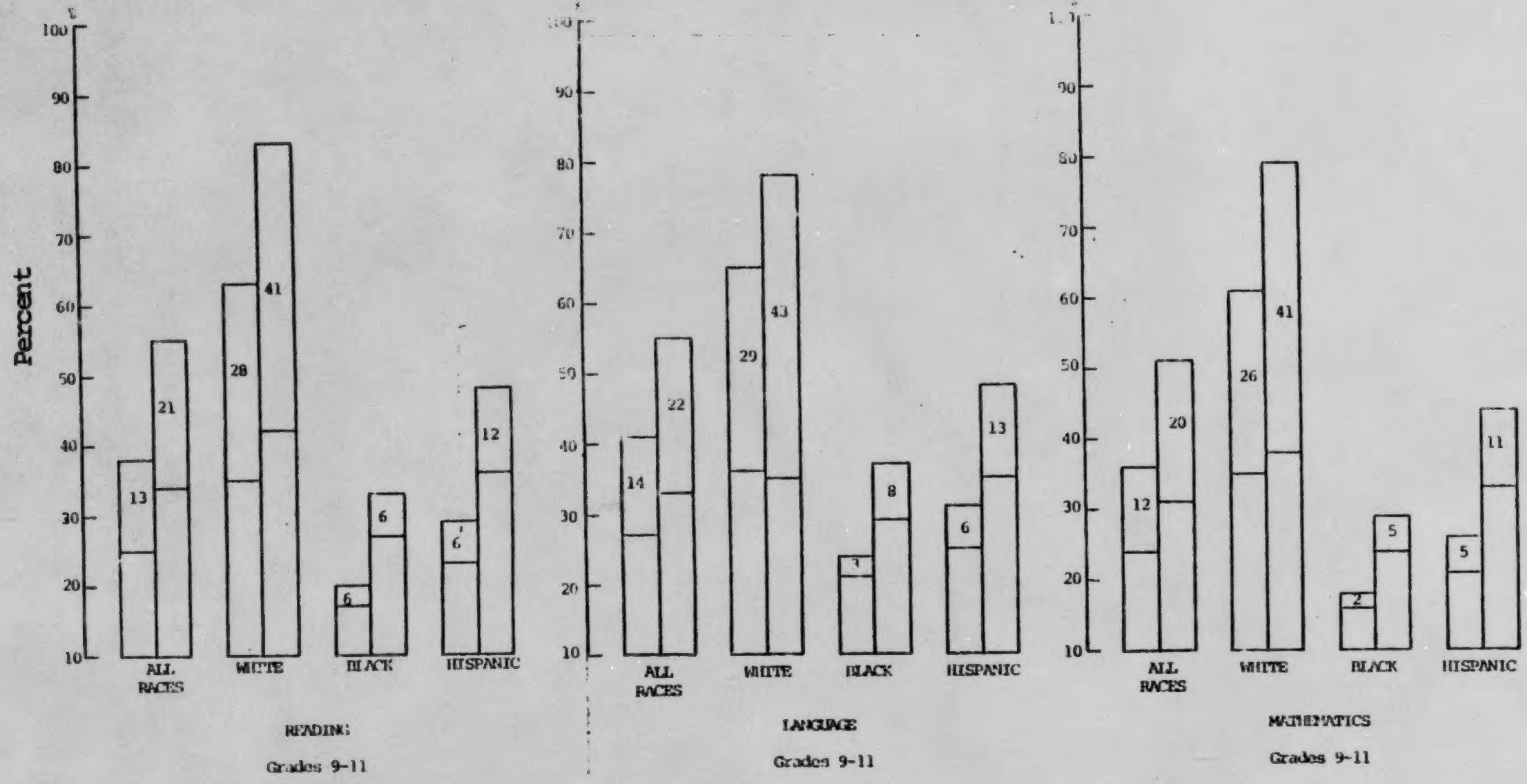


Figure 4

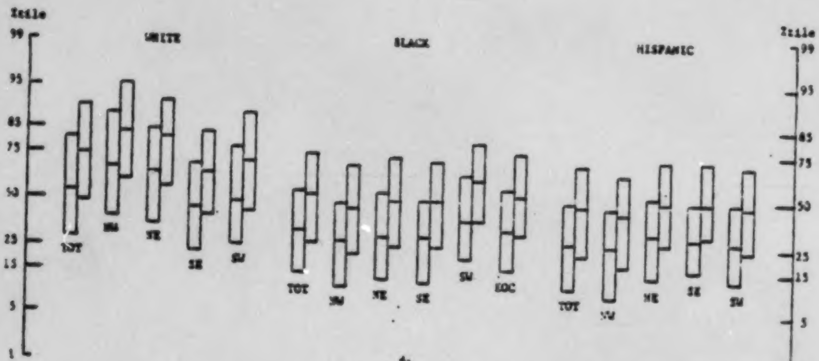
Percent of Students in Grades 9-11 At or Above the 50th and 75th Percentile

Note. Each total bar represents the percent above the 50th percentile; the upper division of each bar represents the percent above the 75th percentile. The left member of each pair of bars corresponds to national norms; the right member, to large-city norms.

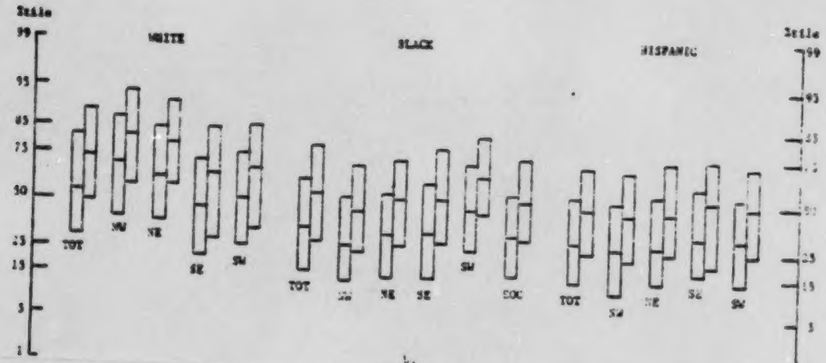
Achievement by grade-level configuration within subdistricts is illustrated in Figures 5 through 8. The figures show median national and large-city percentiles and interquartile percentile range distributions (i.e., the range of percentile scores attained by the middle 50 percent of the students) for 1979-80 by ethnic population for reading, language, and mathematics. For each pair of bars, achievement in terms of national norms is represented on the left and achievement in terms of large-city norms is represented on the right.

Among other things, the figures show that White achievement is highest in the Northwest Subdistrict and lowest in the Southeast Subdistrict at all grade-level configurations and in all areas tested. Among Blacks achievement was highest in the Southwest Subdistrict in all areas at all grade-level configurations except high school where Blacks in the Northeast Subdistrict evidenced the highest level of achievement. Hispanic achievement was generally similar in all subdistricts, although it tended to be highest in the Northeast Subdistrict at higher grade levels, especially in language and mathematics.

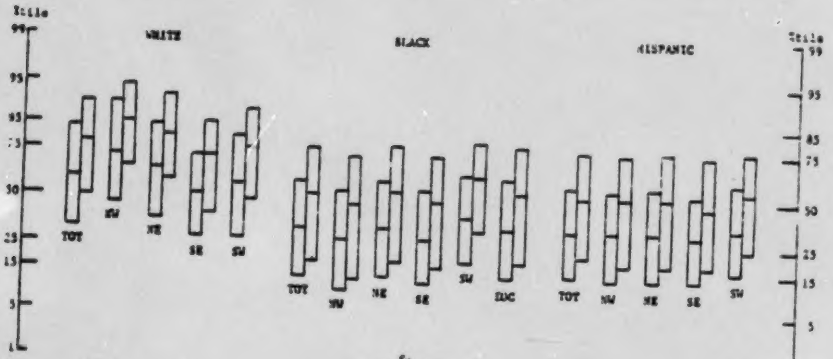
The results of the 1979-80 norm-referenced testing program can be viewed as encouraging. In comparisons with the previous year (where such comparisons were possible) achievement was up, District-wide. Important improvements in level of achievement were particularly noted among the District's minority students. Even without comparison to the previous year, the 1979-80 achievement results generally compared favorably to national norms, especially the national large-city norms. This is not to say, however, that there is not need for improvement. The results show that as grade level increases, achievement level decreases, on the



a.
READING



b.
LANGUAGE

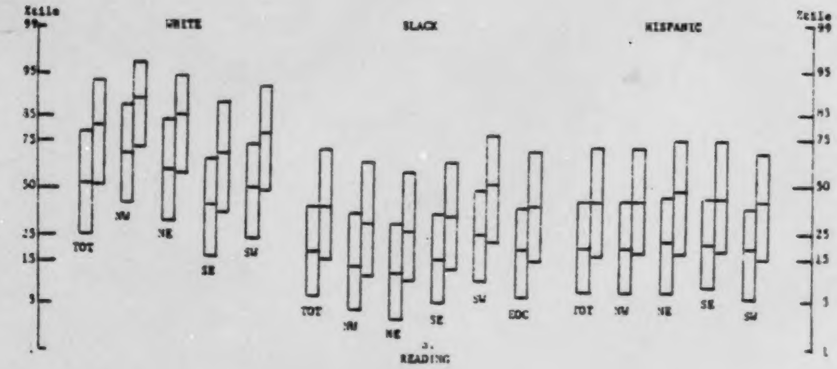


c.
MATHEMATICS

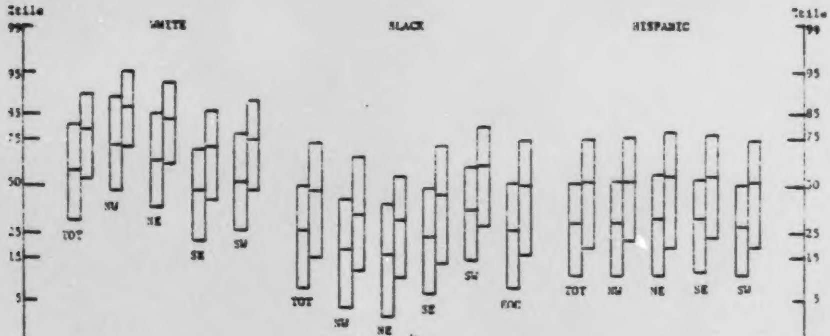
Figure 5

Median Percentiles and Interquartile Percentile Ranges by Ethnicity and Subdistrict for Grades 1-3

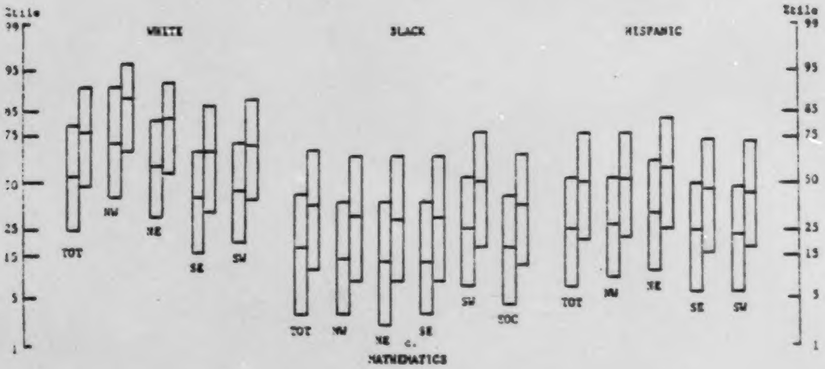
Note. The left member of each pair of bars represents national norms; the right member of each pair represents large-city norms.



a.
READING



b.
LANGUAGE

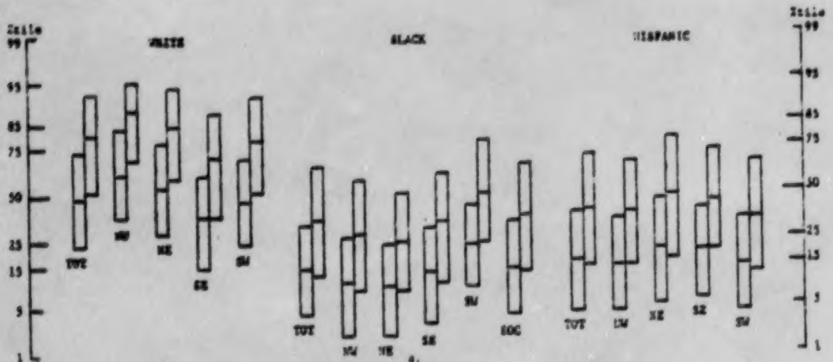


c.
MATHEMATICS

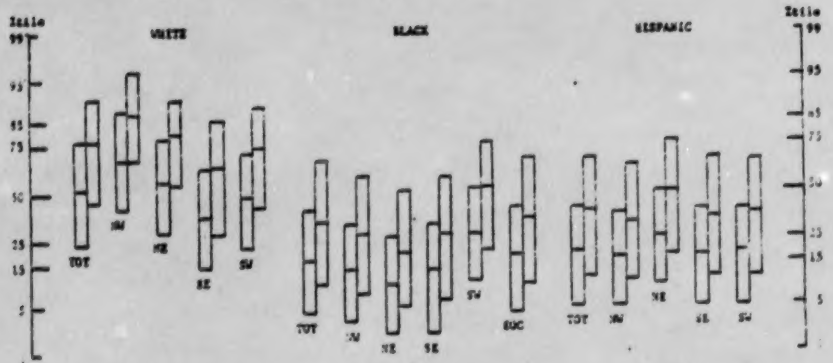
Figure 6

Median Percentiles and Interquartile Percentile Ranges by Ethnicity and Subdistrict for Grades 4-6

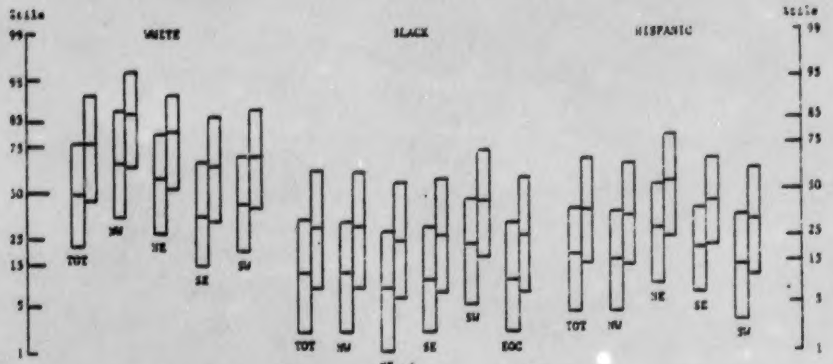
Note. The left member of each pair of bars represents national norms; the right member of each pair represents large-city norms.



a.
READING



b.
LANGUAGE



c.
MATHEMATICS

Figure 7

Median Percentiles and Interquartile Percentile Ranges by Ethnicity and Subdistrict for Grades 7-8

Note. The left member of each pair of bars represents national norms; the right member of each pair represents large-city norms.

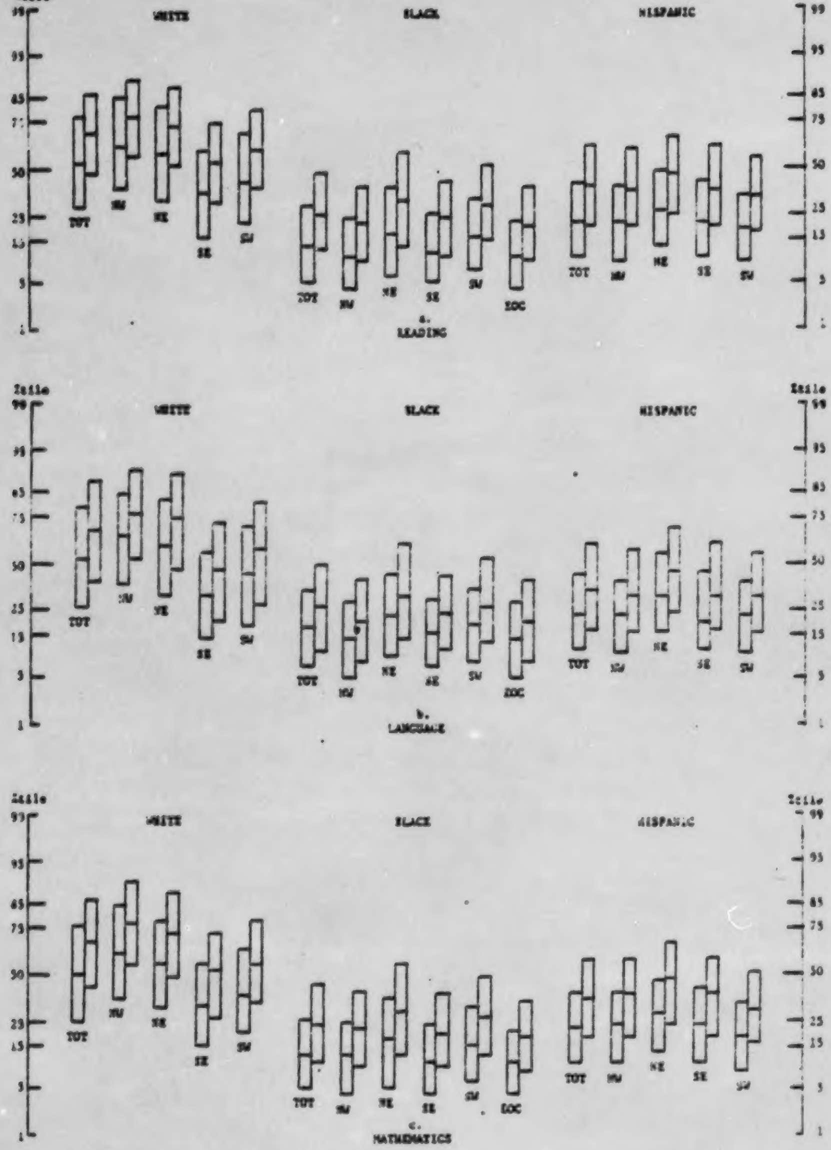


Figure 8

Median Percentiles and Interquartile Percentile Ranges by Ethnicity and Subdistrict for Grades 9-11

Note. The left member of each pair of bars represents national norms; the right member of each pair represents large-city norms.

average, relative to the norm groups. Also, the low achievement performance of minority students as compared to White students is a matter of concern. Thus, the District needs to continue improving its instructional programs both in the higher grade levels and as they affect minority student achievement.

Achievement Growth

Growth in achievement can be viewed from several perspectives. One way of looking at growth is to consider achievement levels across grade levels at a single point in time. This has been done in Figure 9 where median grade-equivalent scores and interquartile grade-equivalent ranges for 1979-80 are graphed for reading, language, and mathematics.[2] Each bar in the figure represents the interquartile range of grade-equivalent scores for a particular grade level. That is, each bar represents the range of grade-equivalent scores attained by the middle 50 percent of the students at a particular grade level. The horizontal line dividing a bar roughly into half corresponds to the median grade-equivalent score for a particular grade level.

In the national standardization sample for the ITBS, median grade-equivalent scores increase in direct correspondence with grade level. Thus, for a spring administration the median national grade equivalent score for grade 1 is 1.8; for grades 2, 3, etc., it is 2.8, 3.8, and so on. These national medians are shown as dotted lines in the figure. Among large-city school districts, however, grade equivalent scores do not increase as sharply across grade levels. Rather, the median grade-equivalent scores by grade level for the large-city norming sample are as shown by the solid lines in the figure.

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[2] Grade-equivalent scores on the TAP (administered to grades 9-11) are not shown.

Figure 9 shows that District-wide achievement did not keep pace with the national norming sample across grade levels. However, among other large-city school districts, District achievement compared favorably. In reading, District students achieved higher, on the average, in grades 1 and 2 and at about the same level in the other grades. In language District students achieved at a higher level than their large-city counterparts in grades 1 through 6 and at about the same level in grades 7 and 8. Mathematics achievement was higher, on the average, in grades 1-4, about the same in grades 5 and 6, and somewhat below the large-city sample in grades 7 and 8. The figure also shows that the range of achievement levels increased in relation to grade level. This phenomenon is typical and reflects the fact that students become more "spread out" in terms of achievement as they move up through the grade levels.

A second way to look at achievement growth is to consider changes in achievement at particular grade levels over years. A study of achievement trends considered from this perspective was reported in Quasi-longitudinal Achievement Trends, 1976-1980 (Meier & Berry, 1980a). In that report, median national percentiles and percentages of students at or above the national median are given by grade level, ethnicity, and subdistrict, in reading, language, and mathematics, over several years beginning with the fall test administration in 1976. Data were available for four years at grades 2, 4, and 8, and for three years at the other

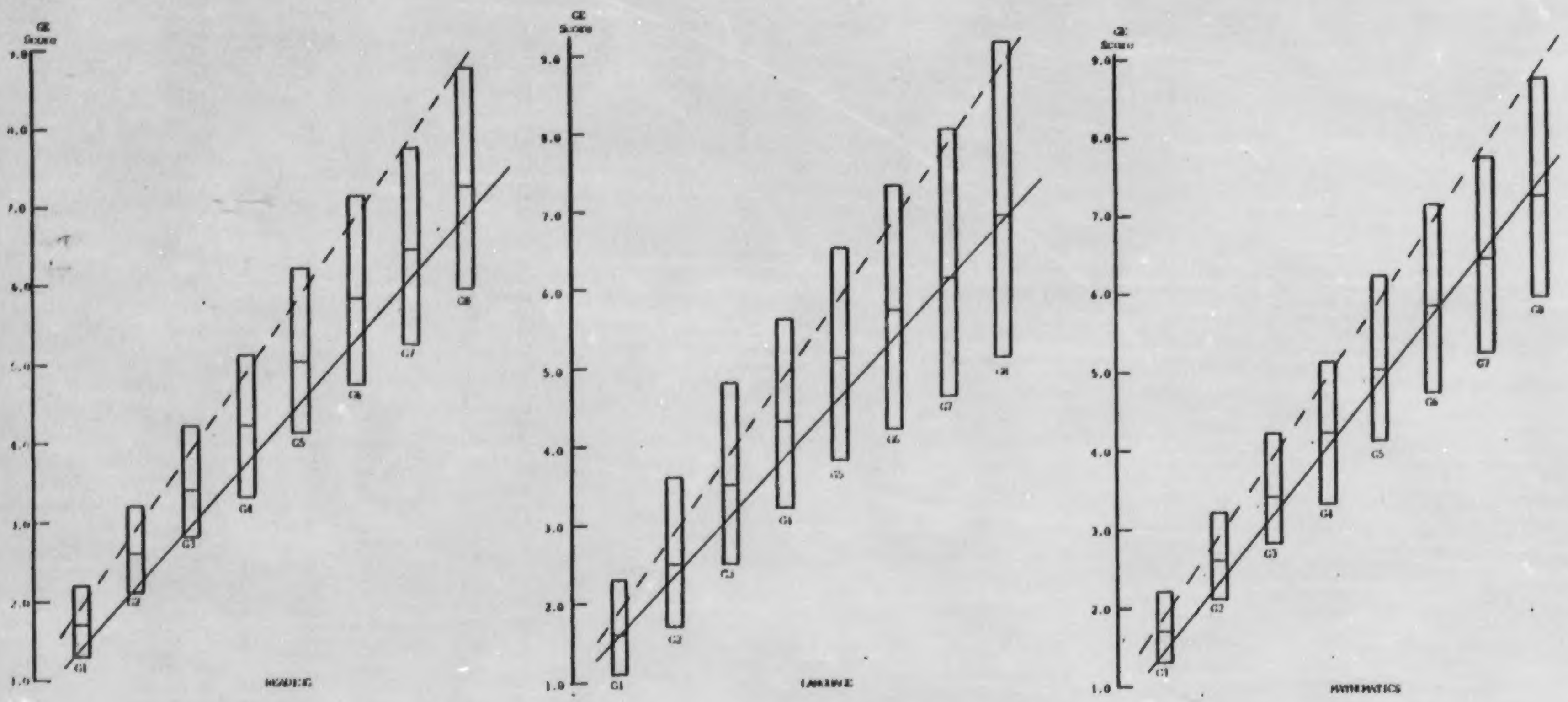

Figure 9

National Grade-Equivalent Medians and Interquartile Ranges in Reading, Language, and Mathematics grade levels except for the high school grade levels where, due to the change in test batteries this past year, no historical comparisons were possible.

Shown in Table 5 are quasi-longitudinal achievement trends for grades 1 through 8. The quasi-longitudinal achievement trends for grades 2, 4, and 8 are displayed graphically in Figures 10, 11, and 12 for reading, language, and mathematics, respectively[3]. The figures show that District achievement has improved over the last four years in all areas tested, at all grade levels shown. This was generally true also for the other grade levels not shown. The trend toward higher achievement in mathematics, especially at the higher grade levels, was particularly evident. Also, the growth in minority achievement evident at grades 4 and 8 appeared substantial.

A final way of looking at longitudinal achievement trends is to consider the achievement growth of particular groups of students over grade levels and years. This can be done in two ways. The achievement of a class of students (called a quasi-cohort) can be tracked longitudinally over time (e.g., grade 2 in 1976, grade 3 in 1977, etc.), or the achievement of particular students (cohorts) can be tracked over time. The latter approach has the advantages of controlling for spurious changes in average yearly achievement levels caused by in- and out-migration of students at different achievement levels. On the other hand it has the disadvantage of being sensitive to selective attrition

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[3] As noted previously, earlier language scores for grade 2 were not available due to the design of a locally-conducted equating study which did not involve the language subtest.

Table 5

Quasi-longitudinal Median Percentile Scores
Total District

Grade	Year	White			Black			Hispanic			All Races		
		R	L	M	R	L	M	R	L	M	R	L	M
1	1978	47		56	39		38	35		33	39		44
	1979	51		66	43		50	35		44	43		56
	1980	59		61	39		38	31		33	41		44
2	1976	44		50	21		20	24		24	28		29
	1978	41		50	29		22	25		27	32		31
	1979	48		59	29		31	22		31	32		36
	1980	54		59	32		36	25		31	34		41
3	1978	45	65	47	19	38	13	19	32	16	26	46	20
	1979	53	65	58	24	38	16	21	35	23	32	46	27
	1980	51	63	58	24	32	27	21	32	31	29	41	35
4	1976	40	37	30	12	13	2	14	15	4	18	20	8
	1978	41	46	34	13	18	3	13	18	7	19	24	11
	1979	48	55	50	15	22	9	17	24	13	25	35	19
	1980	55	62	54	19	28	19	23	31	28	29	37	31
5	1978	41	42	31	10	16	3	11	17	5	17	22	8
	1979	49	53	45	17	20	9	18	28	16	23	32	18
	1980	49	57	53	18	26	18	20	30	26	23	36	28
6	1976	44	41	38	5	7	1	10	13	6	13	15	9
	1979	44	47	43	14	16	7	15	21	16	20	26	20
	1980	50	56	54	15	21	14	20	26	26	25	31	26
7	1978	41		36	5		2	9		4	14		7
	1979	44	42	44	9	12	4	10	14	7	15	20	11
	1980	45	50	46	14	18	12	14	20	18	22	26	22
8	1976	44	39	35	6	6	2	11	13	5	13	17	9
	1978	45		35	6		2	11		5	14		6
	1979	46	43	45	8	10	3	12	16	10	16	18	11
	1980	53	54	51	14	16	13	16	19	19	23	25	22

R = Reading L = Language Arts M = Mathematics

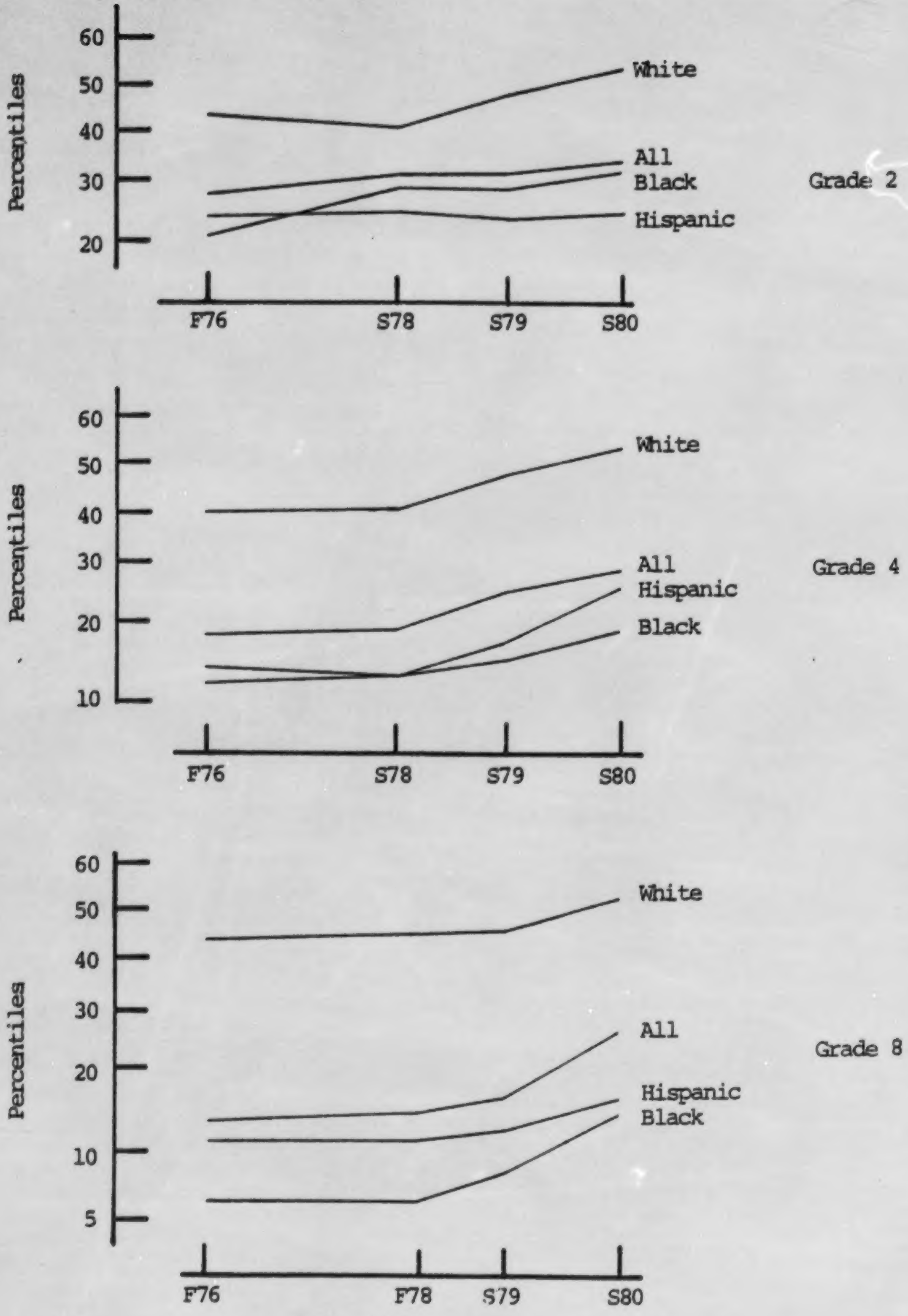

Figure 10

Median National Percentile Changes in
Reading Achievement Over the Years, 1976-1980

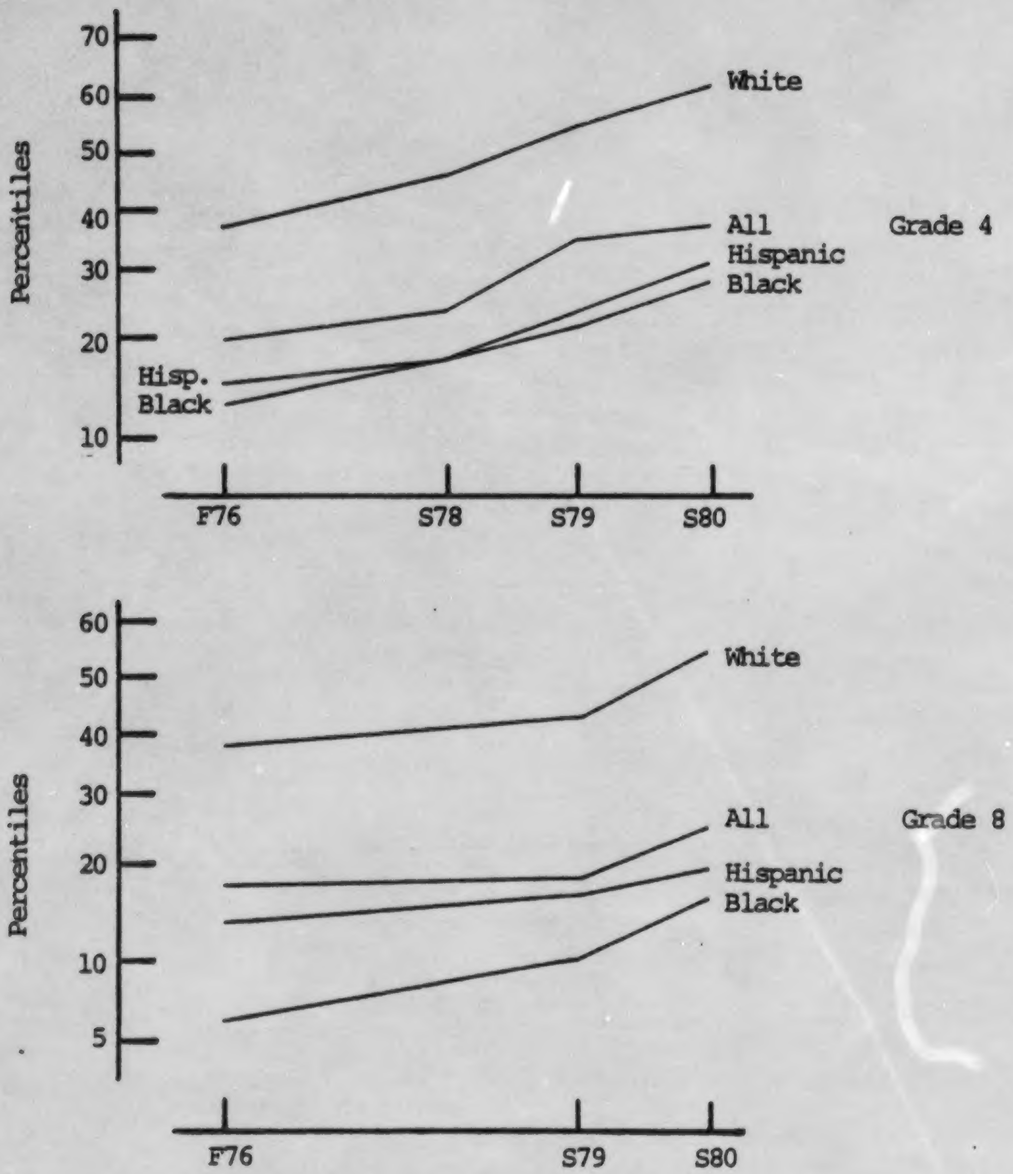

Figure 11

Median National Percentile Changes in Language Achievement Over the Years, 1978-1980

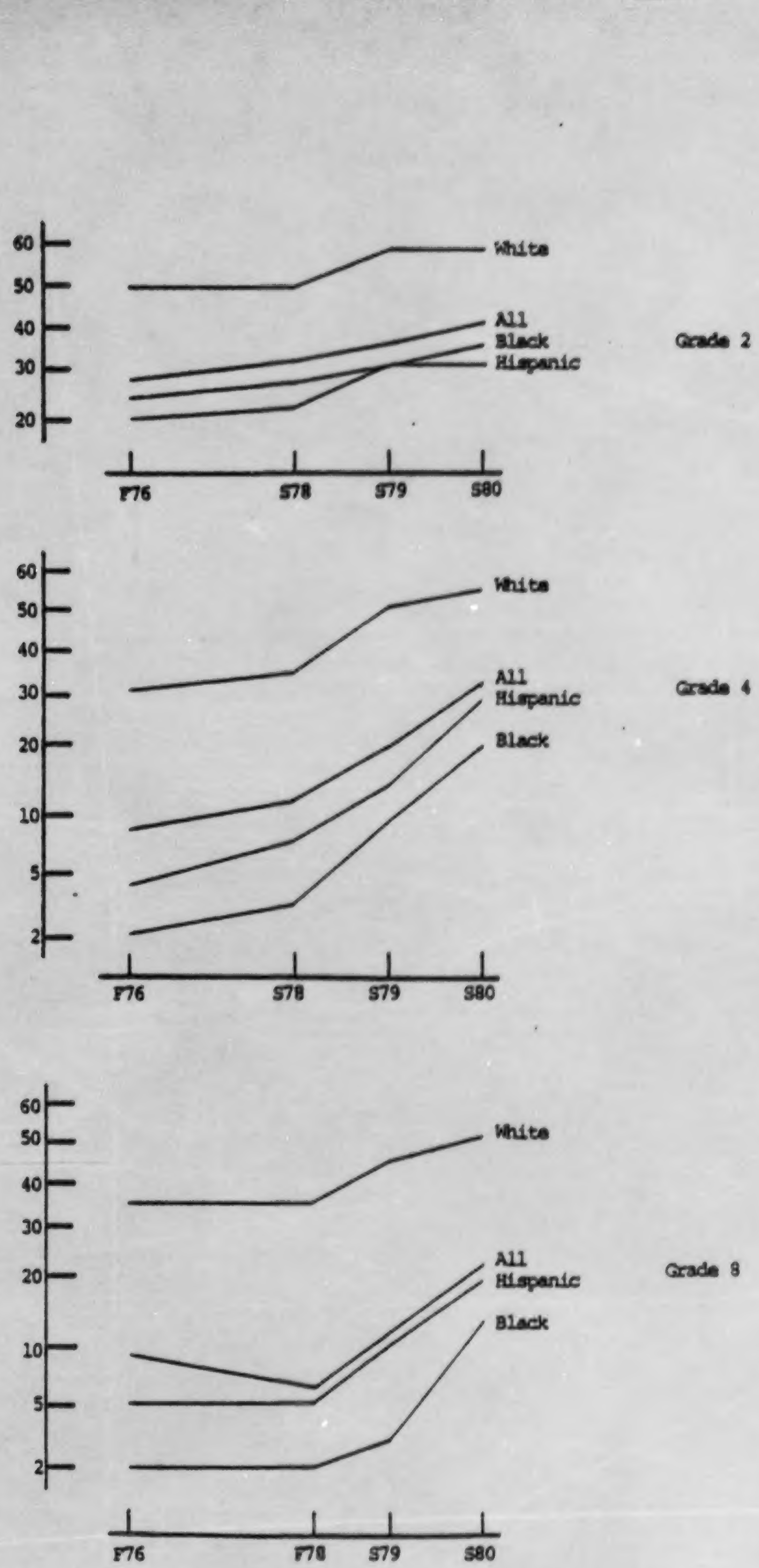

Figure 12

Median National Percentile Changes in
Mathematics Achievement Over the Years, 1976-1980

(e.g., there may have been a higher rate of attrition among higher-achieving students over time). Thus, both approaches should be considered jointly. This has been done in Table 6. In Figures 13 through 16 achievement trends are plotted for two groupings of students, in reading and mathematics. The two groupings consisted of students who were second graders in fall 1976 and students who were fourth graders in fall 1976. The data for students in the cohorts are the fall 1976 and spring 1980 median test scores. For the quasi-cohorts these same statistics are shown as well as those for the intervening years. In addition to medians for the cohorts and quasi-cohorts, medians for non-cohorts in 1976 and 1980 are also given. Non-cohorts were students for whom data were available for one, but not both, of the two end years. Thus, non-cohorts in 1976 were students who presumably left the District sometime after being tested in fall 1976, while non-cohorts in 1980 were students new to the District since the 1976 test administration.

In drawing conclusions from the graphs given in Figures 13 through 16, it is important to bear in mind the discussion given earlier with regard to Figures 10 through 12. There it was shown that within grade levels, achievement has improved over the last few years. Referring now to Figure 13, it can be noted that, among White students in the cohort, reading achievement has grown consistently in relation to that of the national norming group (since the figures are plotted in terms of percentiles, a horizontal line implies a constant rate of growth). Furthermore, the quasi-cohorts evidence improvement over years and grade levels. Also, it is evident that students in the White cohort outperformed students not in the cohort both in 1976 and in 1980.

Table 6

Cohort, Quasi-cohort, and Non-cohort
Median Percentile Scores
Total District

		Reading						Mathematics					
		Cohort		Quasi-cohort		Non-cohort		Cohort		Quasi-cohort		Non-cohort	
Years	Grades	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1976-80	2-5	28	23	28	23	32	23	29	28	29	28	34	28
	4-7	16	20	18	22	20	20	6	22	8	22	8	22
1978-80	1-3	43	29	39	29	39	29	50	35	44	35	44	35
	2-4	32	27	32	29	32	31	31	28	31	31	31	31
	3-5	26	23	26	23	32	25	20	28	20	28	27	31
	4-6	19	25	19	25	21	25	11	26	11	26	11	29
	5-7	18	20	17	22	18	22	9	22	8	22	9	24
	7-8	14	23	14	23	9	23	8	22	7	22	3	20
1979-80	1-2	43	37	43	34	43	34	56	41	56	41	56	41
	2-3	32	32	32	29	34	26	41	35	36	35	45	35
	3-4	32	27	32	29	34	31	27	31	27	31	27	34
	4-5	25	23	25	23	29	23	19	31	19	28	25	28
	5-6	23	25	23	25	27	21	18	29	18	26	26	24
	6-7	20	22	20	22	25	19	20	22	20	22	22	22
	7-8	16	23	15	23	12	25	15	22	11	22	7	22

800-I-34

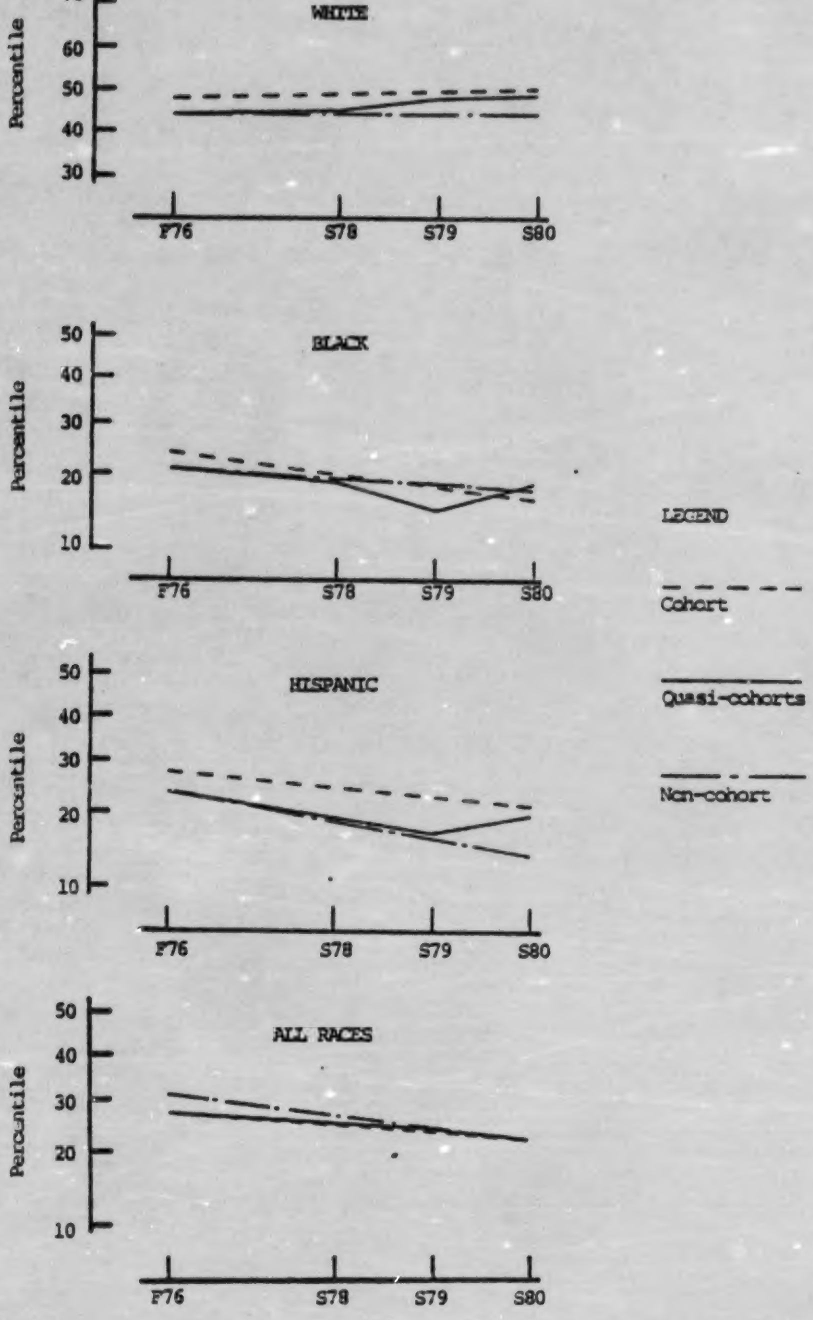

Figure 13

Longitudinal Achievement Growth in Reading
Grade 2, 1976 to Grade 5, 1980

Reading achievement among Black and Hispanic students who began the second grade in 1976 has tended to fall farther behind the national average over the years. However, the apparent upturn in the curves for the quasi-cohorts suggests a recent reversal in this longer-term trend. In fall 1976 Black students who were to remain with the District over the next four years outperformed those who were to leave. By spring 1980, on the other hand, newer Black students outperformed, but not by much, those in the cohort. Hispanic students in their respective cohort achieved higher, on the average, than did the non-cohort students but, once again, the difference was not great.

The trends in mathematics achievement for these same groups are shown in Figure 14. As can be seen, average achievement for both Black and White cohorts remained fairly constant, relative to the norm group, over the years being examined. Among White students those who have remained with the District outperformed those who were new to the District since 1976. Among Black students, however, those who remained in the District achieved higher than those who left after 1976. By spring 1980 new Black students were performing at about the same level as those in the cohort.

Students in the Hispanic cohort improved their standing relative to the norm group over the years. Also, mathematics achievement levels for those Hispanic students who have continued their schooling in the DISD over several years was noticeably higher than the achievement levels of their more transient peers.

The curves for the quasi-cohorts illustrate that, in mathematics, a dramatic improvement in relative achievement levels occurred this past

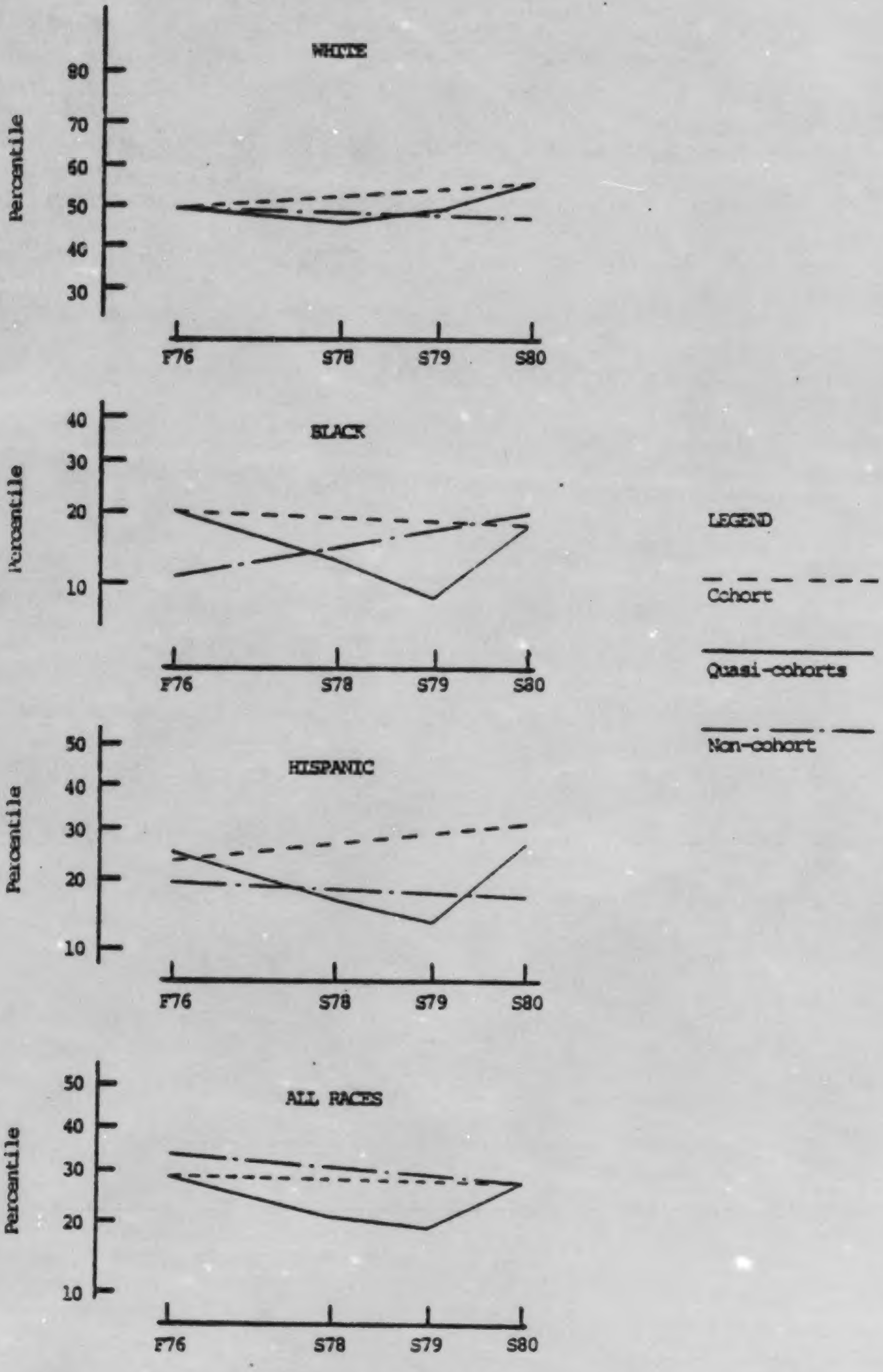

Figure 14

Longitudinal Achievement Growth in Mathematics
Grade 2, 1976 to Grade 5, 1980

year. This was particularly noticeable among minority students, and further supports the conclusions noted earlier in the discussion concerning achievement within grade levels over years.

Figure 15 displays graphs of reading achievement for students who entered the fourth grade in 1976. A slight increase in percentile standing relative to the norm group is discernible among all three ethnic cohorts. Furthermore, the advantage of continuing schooling in the District is apparent, especially among Hispanic students. The curve for the quasi-cohorts suggests that much of the improvement in percentile scores occurred in 1978-79.

Improvement in mathematics achievement from grade 4 in 1976 to grade 7 at the end of 1980 is graphically displayed in Figure 16. Here the improvement was substantial and apparently, from the graphs for the quasi-cohorts, has occurred over the past two years. Although the overall achievement levels were still quite low among minority students, the trend toward dramatic improvement is very evident. These groups have made important gains.

Summary

Overall, District achievement in 1979-80, compared favorably with national large-city norms, but less favorably with undifferentiated national norms. Thus, beyond grade 2 in reading and mathematics, and grade 5 in language, District students were outperformed, on the average, by about two-thirds of the national norming population. When compared with school districts in other large cities, however, District students exhibited superior performance in the lower grade levels and nearly

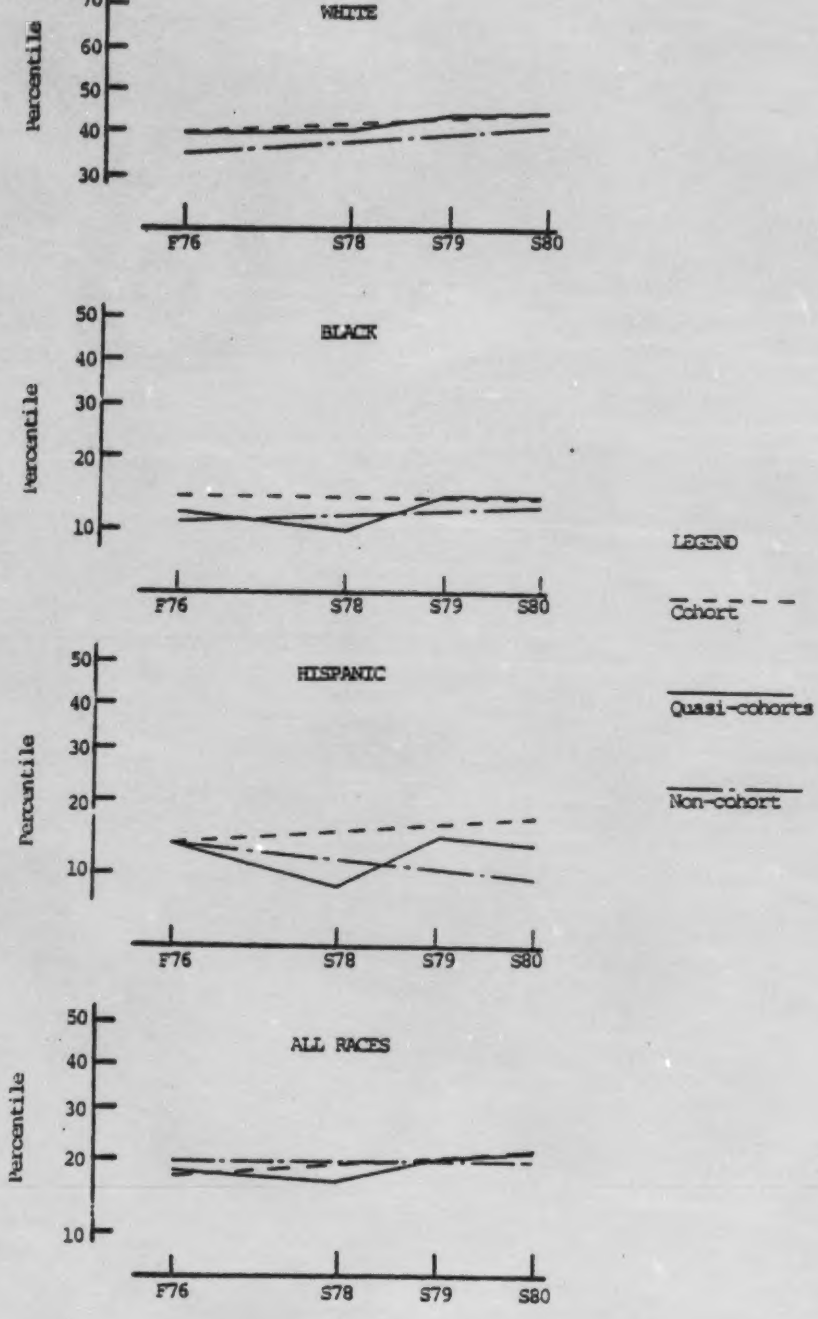

Figure 15

Longitudinal Achievement Growth in Reading
Grade 4, 1976 to Grade 7, 1980

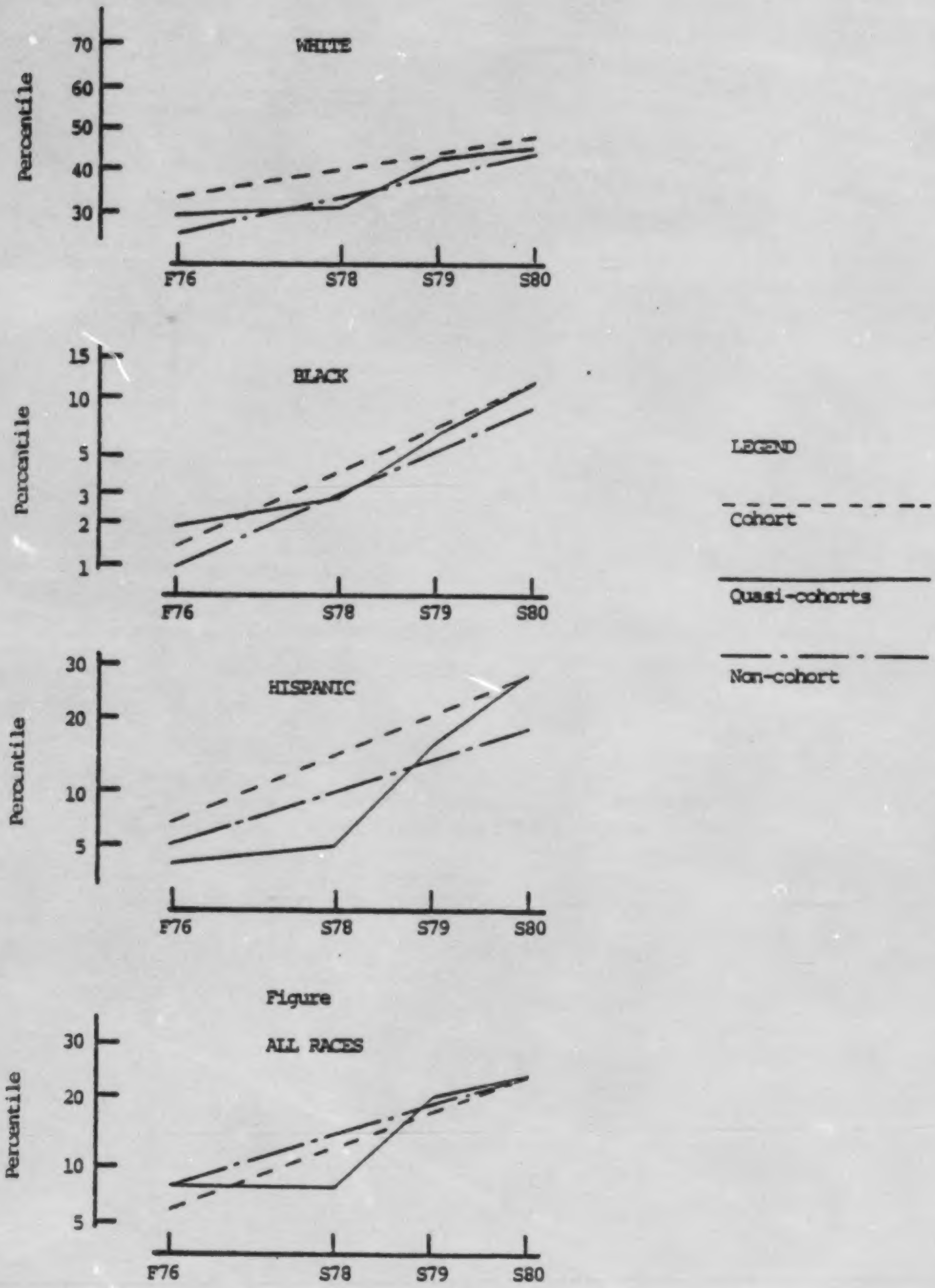

Figure 16

Longitudinal Achievement Growth in Mathematics
Grade 4, 1976 to Grade 7, 1980

equivalent performance in the higher grade levels. Among the District's major ethnic populations, White students performed, on the average, at levels similar to the national group while minority students were noticeably lower. Furthermore, while White students' achievement was relatively stable over grade levels with respect to the norms, minority achievement, especially among Blacks, tended to fall off with increasing grade level.

In comparison with the previous year (1978-79) however, minority achievement was seen as having improved. This was most notable in mathematics at the higher elementary grades, although it was obvious in language and reading, and in all areas tested at the other grade levels as well.

When viewed over several years, achievement levels within each grade level, were observed to have increased. Once again, this result was particularly evident among minority students in mathematics. Thus, it could be concluded that the District is doing a better job at educating its students, particularly its minority students, at all grade levels.

There was also evidence that within ethnic groups, students who continue their education within the District perform at a higher level than do students who leave the District or students who enter the District at higher grade levels. Perhaps the most global summary statement that can be supported by the achievement results reported here, and in the other reports cited, is that while there is still room for improvement, the District has and is making important strides in raising the achievement levels of all its students at all grade levels.

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An Interpretive Analysis of System-wide Achievement Data, 1979-80 Basic Objectives Assessment Tests

James A. Meier

Description and Purpose

Criterion-referenced basic skills and minimum competency tests, called the Basic Objectives Assessment Tests (BOAT), were administered early in 1980. The BOAT for grades 3 and 6 measured student progress toward mastery of basic skills and knowledge in Mathematics, Reading, Science/Health, and Social Studies, as prescribed by the Baseline Documents. Results from these tests are used to identify students needing additional instruction and objectives needing additional emphasis. The BOAT for grades 8-11 measured student progress toward mastery of basic skills and knowledge in seven functional applications: Consumerism, Community, Medical, Home, Employment, Government, and Information Sources. Eventually, all high school students will be required to pass this test or a high school functional literacy course.

All students except those in certain categories of special education were scheduled to be tested in grades 3, 6, and 8 in 1980. Additionally, those students in grades 9-11 who had not attained a score of 70% or higher when tested in 1979 or who were not present for testing in 1979 were scheduled for testing in 1980. Those students who had attained a score of 70% or higher in 1979 were not retested in 1980 but are included below in the total numbers and percentages of students who have now passed the test.

Evaluation Results and Interpretation

Displayed in Table 1 are numbers and percentages of students tested in grades 3, 6, and 8 in 1980 and in grades 9-11 in 1980 or previously. Also displayed, for comparison, are percentages of students tested in 1979; in all grades the percentages were higher in 1980 than in 1979. Percentages were high for grades 3, 6, and 8 (95% or higher); in these grades most of the students who were supposed to be tested were actually tested; percentages tested were higher for White and Black students than for Hispanic students. Percentages were lower for grades 9-11 (90% or lower); in these grades many of the students who were supposed to be tested did not receive or did not choose to accept the opportunity to be tested; percentages tested were higher for White and Hispanic students than for Black students. Students in grade 9 (86% tested) in 1979-80 are the first group needing to satisfy the Board of Education's minimum competency requirement for graduation.

Presented in Table 2 are median percent correct scores by grade (for grades 3, 6, and 8 only) and ethnicity. The median is defined as that score which divides a set of ranked scores into halves; half of the scores in the set fall below the median and half above it. In grade 3 half of the students tested mastered more than 80% of the test items; medians tended to be highest in Mathematics and Reading and lowest in Social Studies. In grade 6 half of the students tested mastered 79% of the test items; medians tended to be highest in Reading and lowest in Science/Health. In grade 8 half of the students tested mastered 66% of the test items; medians tended to be highest in Medical and lowest in Government; because the passing score is 70%, more than half of the grade 8 students will require retesting in grade 9 in 1981.

Table 1

Number and Percent of Students BOAT-Tested

	Grades					
	3	6	8	9	10	11
Number in 1980	10070	8966	8844	9916	8586	8426
Percent in 1980	96	97	95	86	88	90
Percent in 1979	95	94	87	78	81	81

Note. The numbers and percentages tested in 1980 which are reported in this table differ from those in Report No. RE80-814-61-05 because of the elimination of certain special education students. Numbers reported here for grades 9-11 reflect total enrollment (excluding the special education students), whereas in RE80-814-61-05 the numbers for these grades relate to the population of students who were untested or who had previously failed.

Table 2

Median Percent Correct Scores on the BOAT

Ethnicity	Grades 3	 6	 8
White	86	88	80
Black	78	74	60
Hispanic	78	76	62
All Races	81	79	66

A more interesting display of BOAT scores for grades 3, 6, and 8 can be found in Table 3. Reported there are decreasing percentages of students mastering an increasing percentage of test items. These results are graphed for ethnic components in Figure 1. Generally, large percentages (90%-95%) of students performed very well on half (50%) of the total test in grades 3 and 6 and on nearly half (40%) of the total test in grade 8. The percentages of students mastering larger portions of the test tended to fall off rapidly. It is encouraging to note that, by comparison with test results in 1979, a fair amount of improvement occurred in 1980. For example, the percentage of students reaching 50% grew in grade 3 from 85% in 1979 to 95% in 1980 and in grade 6 from 86% in 1979 to 90% in 1980. It must be noted at this point that in 1979 the BOAT covered only Mathematics and Reading in grades 3 and 6, while in 1980 Science/Health and Social Studies were added. Thus, any interpretation of the meaning of improvement across years must be accompanied by caution. In grade 8 the percentage of students reaching a passing score (70%) grew from 39% in 1979 to 43% in 1980.

However, the percentages reported in Table 3 imply also that large numbers of students exist in grades 3 and 6 who failed to reach even marginally satisfactory scores (50%). While such students should not be denied advancement to the next grade solely on the basis of their poor performance on the BOAT, some investigation of their achievement records is warranted at the local school to see if retention and/or specialized instruction is merited. After all, the very purpose of BOAT testing in these grades is to identify early and to monitor the remediation of

Table 3

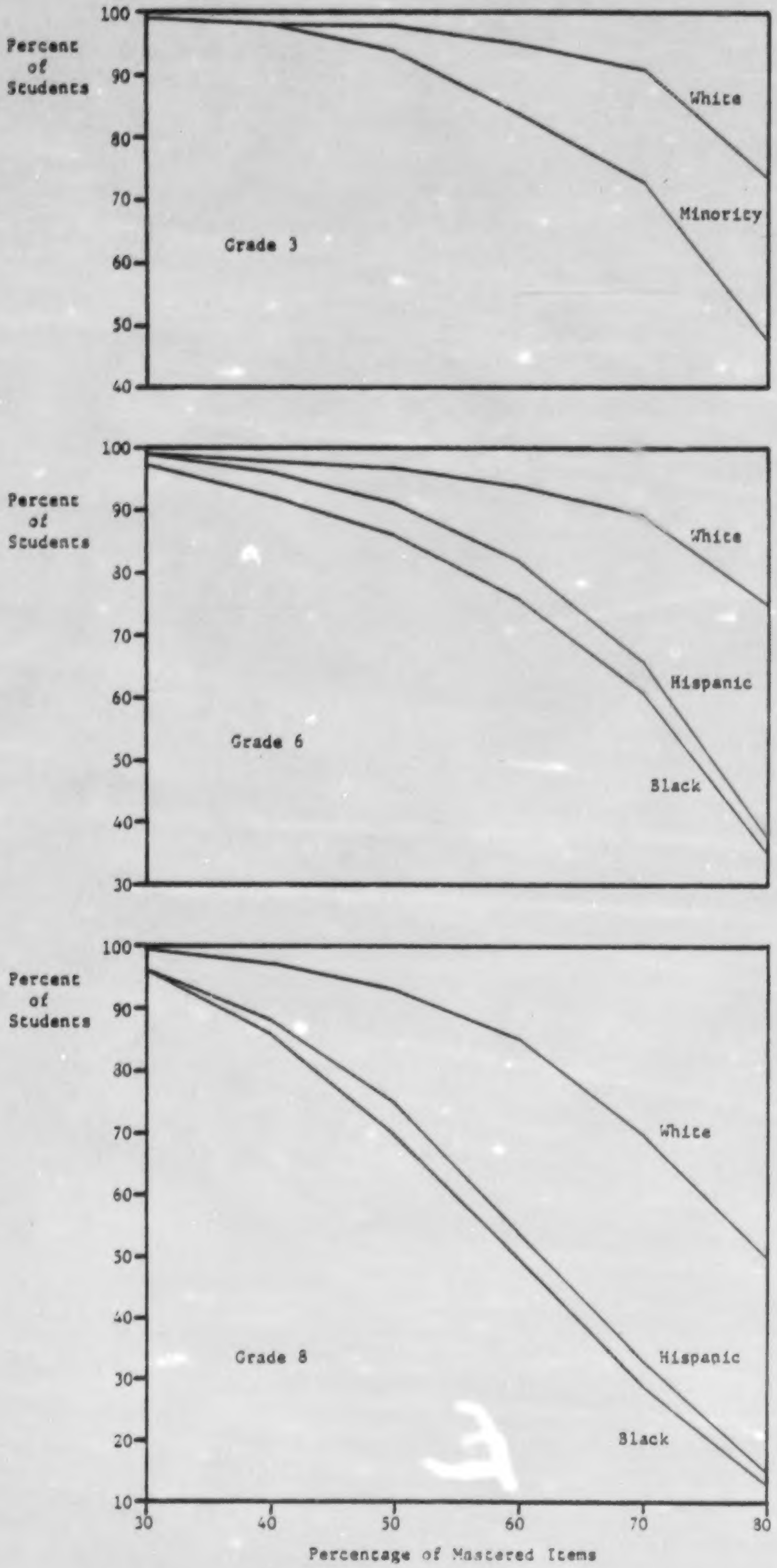
Percent of Students Correctly Answering Specific Percentages of BOAT Items

	Percentages of Correct Items					
	30%	40%	50%	60%	70%	80%
Grade 3						
White	99	98	98	95	91	74
Black	99	98	94	84	73	48
Hispanic	99	97	94	85	73	47
All	99	97	95	87	78	56
Grade 6						
White	99	98	97	94	89	75
Black	97	92	86	76	61	35
Hispanic	99	96	91	82	66	38
All	98	95	90	82	70	48
Grade 8						
White	99	97	93	85	70	50
Black	96	86	70	50	29	13
Hispanic	96	88	75	54	33	15
All	97	90	78	62	43	25

Note. Tabled figures are percentages of students who correctly answered at least the percent of items indicated in the column heading (i.e., correctly answered at least 30% of the items, etc.).

Figure 1

Percent of Students Mastering at Least these Specific Percentages of BOAT Items



students whose baseline skills are poor. The table points out that 5% of the students in grade 3 and 10% of those in grade 6 probably deserve such an investigation.

Table 4 presents appreciable increases, from 1979 to 1980, in the percent of high school students who have now passed the BOAT. These results are graphed for ethnic components in Figure 2. These increases can be viewed both within grade and within cohort. Within-grade improvement measured about 5 units on the percentage scale, averaged over grades 8-11: 4 units in grade 8, 4 in grade 9, 5 in grade 10, and 9 in grade 11. Improvement was greater for minority students than for White students. Within-cohort improvement measured about 17 units on the percentage scale, averaged over three cohorts; of those students retested, 35% reached the passing score (70%). Again, improvement was greater within minority cohorts than within White cohorts. Apparent in Figure 2 is the steepness of the graphs for minority students. This displays a strong rate of improvement, especially between grades 8 and 9 and again between grades 9 and 10. As minority high school students grew in age, those of them who attended school faithfully enough to be present for testing also grew remarkably fast in reaching minimum competency. The picture is an encouraging one. The combined effects of schooling and maturing during high school years did add up to large increases in the percentage of students attaining competency.

However, another view of the achievement growth of District students, while helping to complete the picture, represents it as less encouraging. The percentages of retested students who passed were not high enough in 1980 to justify highly favorable projections of minority

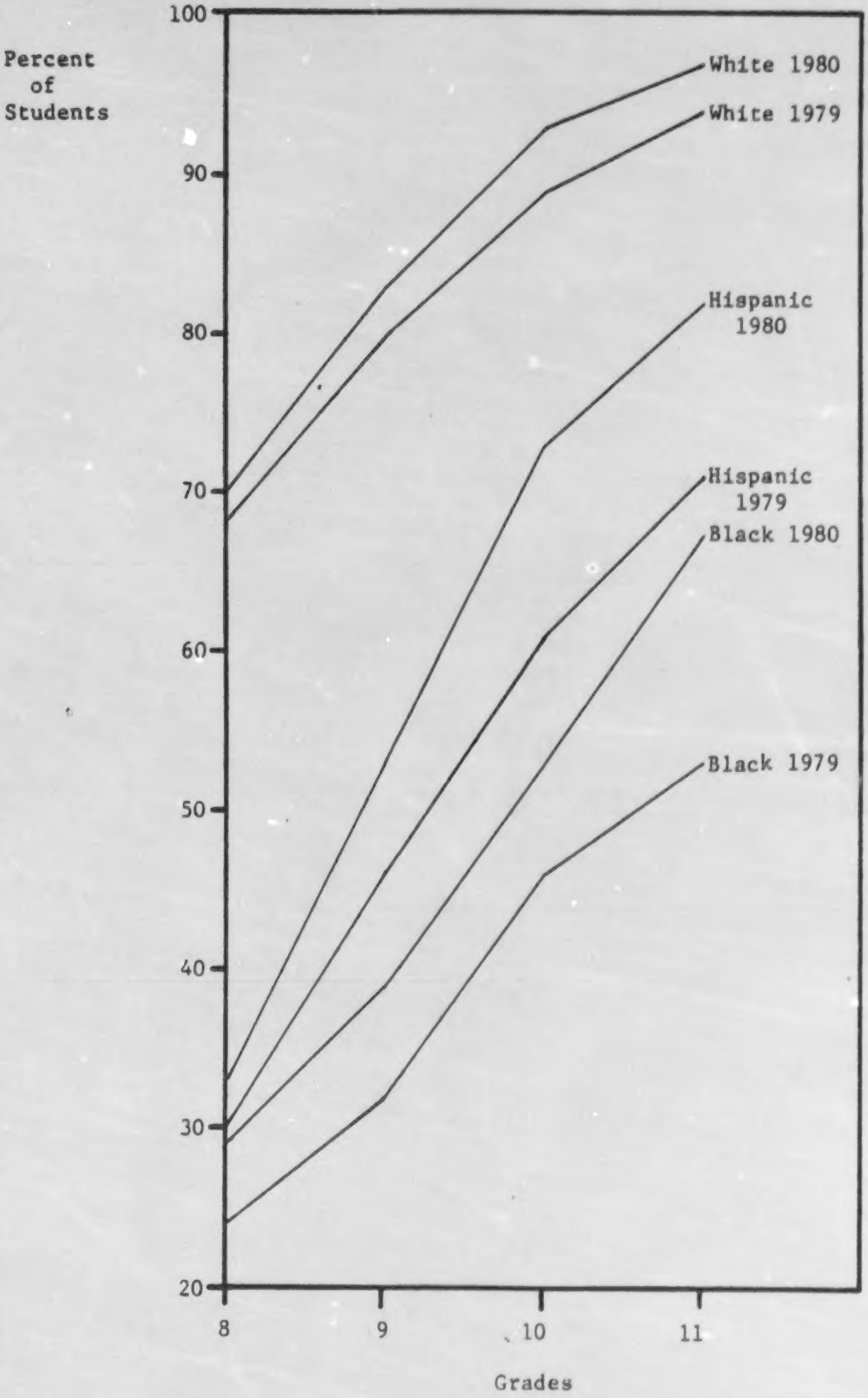
Table 4

Cumulative Percent of Students Tested Who Passed the Boat by 1979 and by 1980

	White		Black		Hispanic		All Races	
Grade	79	80	79	80	79	80	79	80
8	68	70	24	29	30	33	39	43
9	80	83	32	39	46	53	52	56
10	89	93	46	53	61	73	66	71
11	94	97	53	67	71	82	73	82

Figure 2

Cumulative Percent of Students Who Passed the BOAT by 1979 and by 1980



students passing in grade 12 in 1981. Table 5 displays these percentages of retested students who passed. Within each column the percentages increase as grade level increases. Projected according to the table's pattern, the percentages of grade 12 students who will be retested and passed in 1981 should be nearly 91% for White, 41% for Black, and 56% for Hispanic students. Application of these projections to the tested but unpassed residuum of grade 11 students who will be retested will lead to these projected results: less than one-half of 1% of White, 19% of Black, and 8% of Hispanic students shall not pass in grade 12 in 1981. These percentages remain uncomfortably high for minority students. Of course, any positive intervention made by formal instruction in minimum competency skills, such as the high school functional literacy course, should reduce these projected percentages of failures.

Summary

The BOAT testing program was implemented by the schools more comprehensively in 1980 than earlier. Particularly in the high schools effective efforts were made to impress students with the need to be present for testing and to take care to perform well. Also more time was made available for taking these untimed tests. As a result, both the percentages of students tested and their performance scores were improved in all grades in 1980. Minority students showed the largest gains in both respects. If the testing program is continued with similar seriousness in 1981, then a continuing 35% of those retested will reach a passing score. Students scoring near 60% in 1980 will reach a score of

Table 5

Percentages of Retested Students Passing in 1980

Grades	White	Black	Hispanic	All Races
9	60	20	33	31
10	69	27	44	37
11	80	34	51	45

70% or higher in 1981; more than 85% of the students tested by grade 11 and more than 90% of the students tested by grade 12 shall have passed.

However, there will likely persist an untested remnant of students whose evasion of testing will one day threaten their graduation and embarrass the District. Based on recent experience an estimate can be made that nearly 7% of grade 12 students will remain untested perhaps largely due to the numbers of students who habitually avoid attending school (Marcus & Julian, 1980). Perhaps the District's new attendance policy will serve to reduce this percentage in two ways: by motivating students to be present in school on days for testing and by making clearer to high school registrars that students who once enrolled and then discontinued attending school early on are to be removed from the rolls. If so, the size of the untested remnant will diminish and the percentage of tested students who pass the high school BOAT will more nearly approximate the percentage of enrolled students who pass.

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An Interpretive Analysis of System-wide Achievement Data, 1979-80

Texas Assessment of Basic Skills

Daniel S. Sheehan

During the early spring of the 1979-80 school year all fifth- and ninth-grade students in Texas public schools took part in the Texas Assessment of Basic Skills (TABS). These students were administered criterion-referenced tests which measured essential reading, writing, and mathematics objectives. Both the objectives and the tests which were developed from them were formulated especially for Texas schools and were reviewed and revised by groups of Texas educators (TEA, Note 1). The results from the testing were reported to principals and teachers in local school districts so that students who had not mastered the essential learning objectives could be identified and appropriate compensatory instructional services could be designed and implemented (TEA, Note 2).

Personnel from the District's Department of Research and Evaluation have written two detailed reports (Anthony & Sheehan, 1980; Sheehan & Anthony, 1980) concerning various aspects of the TABS assessment program. The purpose of this analysis is to summarize these reports and to develop a more readily interpretable manuscript. The specific aspects of the original reports which will be summarized include (a) the origin of the testing mandate, (b) a description of the TABS tests, (c) the correspondence between the TABS objectives and the District's baseline, (d) the correspondence between the TABS tests and the Basic Objectives Assessment Tests (BOAT), (e) the District's results from the 1979-80 testing, (f) some concerns with the existing testing program, and (g) information pertaining to the validity of the TABS tests.

Origin of the Testing Mandate

The TABS assessment program is the culmination of the interplay of a variety of events which have occurred over the last 10 years. One of these events was the establishment, in 1970, of a set of Goals for Public School Education in Texas by the State Board of Education. Another important event was the 1973 statement of the Priorities of the State Board of Education. These priorities included a strong commitment to accountability, particularly in the areas emphasized by the Goals for Public School Education. The importance of accountability was also reinforced by the 1977 revisions of the school accreditation standards. More emphasis was placed on student development goals, whether those goals were achieved, and how this information could be used to impact instruction. Thus, through State Board policy, student learning goals were specified and accountability was defined in terms of those goals.

Concomitantly, the legislature was active in the movement toward greater accountability and ultimately passed the legislation which created the TABS assessment program. Specifically, the 65th Legislature considered setting minimum standards of student performance in certain school subjects, and assessing student performance relative to those standards. However, the one bill that was introduced was not enacted into law.

In the 66th Legislature more bills were introduced which were related to the minimum competency testing of students. These bills contained a variety of proposals regarding the skill areas to be tested, the grade levels to be tested, the setting of minimum standards, and the use of the test scores for promotion and/or graduation decisions. One of these bills, Senate Bill (SB) 350, was enacted into law. SB 350 is the legal basis for the TABS. Section 16.176 of the bill directed the State Board of Education to establish standards of student performance in reading, mathematics, and written composition, and to adopt criterion-referenced tests to measure student performance in these areas. Unlike other proposals which were introduced in the 66th Legislature, this bill did not stipulate that student test scores are to be used for promotion and graduation decisions.

Thus the last decade has provided the forces which have led to the development of the Texas Assessment of Basic Skills. The State Board of Education established student learning goals and emphasized accountability in terms of those goals. At the same time, the legislature was interested in the development of a statewide minimum competency testing program. The TABS represents the culmination of these forces.

Description of the TABS Tests

To determine what the TABS tests should measure, the Texas Education Agency (TEA) sponsored a series of regional meetings. These meetings were attended by educators and the lay public and were used to identify essential entry-level (grade 3), mid-point (grade 5), and exit-level (grade 9) objectives in reading, writing, and mathematics. The objectives identified were selected on the basis of their importance to the curriculum. They were not a complete enumeration of all of the objectives in a content area. Rather, they were selected basic objectives that almost all students were expected to master. Adopted by the State Board of Education, they have become the mandated basic competencies in the three content areas.

Although a variety of standardized tests were available, TEA felt that none was completely adequate to measure the essential objectives. No standardized test measured exactly the same content as that defined by the essential objectives. Consequently, TEA is supervising the construction of the TABS tests which are specifically designed to measure the essential objectives. These tests are criterion-referenced in the sense that test scores are interpretable in relation to the essential objectives. That is, test scores can be used to determine student strengths and weaknesses in specific skill areas.

The entry-level TABS test is currently being constructed and will be administered statewide beginning in 1980-81. The mid-point and exit-level TABS tests were constructed during 1979-80, and they were administered statewide to all fifth- and ninth-grade students. In the following sections, the objectives measured by the entry-level tests in reading, mathematics, and writing are outlined. The mid-point and exit-level tests and the individual student reports in the three content areas are described in detail.

Reading

Table 1 summarizes the objectives that will be measured by the entry-level criterion-referenced reading test. Also summarized in Table 1 are the objectives that were measured by the mid-point and exit-level criterion-referenced reading tests.

At both the mid-point and exit levels there were 11 reading objectives. Each objective was measured by four multiple-choice items. Consequently, both the mid-point and exit-level reading tests contained 44 items.

A student was considered to have mastered an objective when he or she correctly answered at least three of the four items for the objective. In

Table 1

TABS Entry-Level, Mid-Point, and Exit-Level Essential Reading Objectives

Entry-level reading objectives
1. Identify main idea
2. Recall facts, details
3. Sequence events
4. Follow written directions
5. Identify character feelings
6. Use context clues
7. Identify roots, common affixes
8. Identify plural endings
9. Identify antonyms, synonyms
10. Identify compound words
Mid-point reading objectives
1. Identify main idea
2. Recall facts, details
3. Sequence events
4. Distinguish fact, non-fact
5. Draw conclusions
6. Predict outcomes
7. Use context clues
8. Use index
9. Use maps, charts
10. Follow written directions
11. Identify character feelings
Exit-level reading objectives
1. Identify main idea
2. Sequence events
3. Perceive cause-effect
4. Evaluate information
5. Distinguish fact, non-fact
6. Draw conclusions
7. Make generalizations
8. Follow written directions
9. Use parts of book
10. Use reference skills
11. Use maps, charts

addition, a mastery criterion was specified for the exit-level (grade 9) test. A student was considered to have demonstrated mastery of minimum exit-level reading competencies when he or she answered correctly at least 30 (68%) of the 44 items on the test.

Student scores were given at both the objective and test level. Individual student reports indicated mastery status on each objective, the number of items answered correctly for each objective, the total number of objectives mastered, and the total number of items answered correctly. At the mid-point level there was also a predicted norm-referenced-test percentile score. This represented the estimated percentage of a national sample of students who would have scored the same or lower on the reading section of the California Achievement Tests. Because it was a prediction it should be used for group and not individual decisions. At the exit level there was no predicted norm-referenced-test percentile. There was, however, the previously mentioned overall mastery decision.

Mathematics

Table 2 summarizes the objectives that will be measured by the entry-level criterion-referenced mathematics test. Also summarized in Table 2 are the objectives that were measured by the mid-point and exit-level criterion-referenced mathematics tests.

The fifth-grade test contained 12 mathematics objectives, while the ninth-grade test contained 11. With four multiple-choice items measuring each objective, there were 48 items in the fifth-grade test and 44 items in the ninth-grade test.

Objective mastery status was again defined as correctly answering at least three of the four items for the objective. The overall exit-level mastery criterion was also the same. A student was considered to have

Table 2

TABS Entry-Level, Mid-Point, and Exit-Level Essential Mathematics Objectives

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Entry-level mathematics objectives

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1. Read, write whole numbers
2. Sequence numbers
3. Add whole numbers
4. Subtract whole numbers
5. Solve word problems: +, -
6. Complete a number pattern
7. Multiply whole numbers
8. Identify fractional parts
9. State value of coins and bills
10. Select units of measure

Mid-point mathematics objectives

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1. Geometric terms, figures
2. Interpret place value
3. Add whole numbers
4. Subtract whole numbers
5. Multiply whole numbers
6. Divide whole numbers
7. Solve word problems: +, -
8. Solve word problems: X, ÷
9. Units of measure
10. Interpret graphs
11. Identify equivalent fractions
12. Sequence numbers

Exit-level mathematics objectives

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1. Add/subtract whole numbers
2. Multiply/divide whole numbers
3. Solve problems: +, -, X, ÷
4. Use fractions/mixed numbers to +, -, X
5. Use decimals to +, -, X, ÷
6. Solve personal finance problems
7. Solve problems using money
8. Use measurement units
9. Use ratio/proportion/percent
10. Read maps
11. Read, interpret charts/graphs

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mastered the exit-level mathematics competencies when he or she answered correctly at least 30 (68%) of the 44 items on the test.

The individual student mathematics reports contained essentially the same information as the individual student reading reports. Mastery status on each objective, the number of items answered correctly for each objective, the total number of objectives mastered, and the total number of items answered correctly were reported at both the fifth- and ninth-grade levels. In addition, the predicted norm-referenced-test percentile score was reported at the fifth-grade level, and the overall mastery decision was reported at the ninth-grade level.

Writing

Table 3 summarizes the objectives that will be measured by the entry-level criterion-referenced writing test. Also summarized in Table 3 are the objectives that were measured by the mid-point and exit-level criterion-referenced writing tests.

At both the mid-point and exit level, there were nine writing objectives. Six of the writing objectives at each level (spelling, punctuation, capitalization, correct English usage, sentence structure, and commonly used forms) were measured by four multiple-choice items per objective. The other three writing objectives (handwriting, organization of ideas, and appropriate response--purpose/audience) were measured by a writing sample.

For the six objectives measured by the multiple-choice items, mastery status was defined as correctly answering at least three of the four items for each objective. The writing sample was scored by two raters. (A third rater was used if the two raters did not agree.) The handwriting was judged to be not ratable, illegible, hard to read, or acceptable. Ratings on organization and appropriateness of response were combined to

Table 3

TABS Entry-Level, Mid-Point, and Exit-Level Essential Writing Objectives

Entry-level writing objectives

1. Spelling
2. Handwriting
3. Punctuation
4. Capitalization
5. English usage
6. Sentence structure
7. Organization of ideas
8. Appropriate response--purpose/audience

Mid-point writing objectives

1. Spelling
2. Punctuation
3. Capitalization
4. Correct English usage
5. Sentence structure
6. Commonly used forms
7. Handwriting
8. Organization of ideas
9. Appropriate response--purpose/purpose

Exit-level writing objectives

1. Spelling
2. Punctuation
3. Capitalization
4. Correct English usage
5. Sequence structure
6. Commonly used forms
7. Handwriting
8. Organization of ideas
9. Appropriate response--purpose/audience

yield a writing sample raw score which could range from 0 to 4 (0 was poor while 4 was excellent).

At the exit level, a total writing score was computed. This score weighted student performance on both the multiple-choice items and the writing sample. However, the writing sample was given twice as much weight as the multiple-choice items. Specifically,

$$\text{Total writing score} = \left(\text{Number of multiple-choice items answered correctly [of 24] divided by 3}\right) + \left(\text{Raw Score [from 0 to 4] on writing sample multiplied by 4}\right)$$

Mastery level was set at a total score of 13 points of a possible 24, provided that at least eight points were earned on the writing sample. Thus, effectively, students had to receive a writing sample raw score of at least two in order to demonstrate mastery of the writing test.

The individual student writing reports contained two types of information. First, for the objectives measured by multiple-choice items the mastery status on each objective, the number of items answered correctly for each objective, the total number of objectives mastered, and the total number of items answered correctly were reported. Second, for the objectives measured by the writing sample a handwriting descriptor (not ratable, illegible, hard to read, acceptable) was printed. In addition, the writing sample raw score (measuring organization and response appropriateness) was given. At the ninth-grade or exit level, a converted multiple-choice score (number of multiple-choice items answered correctly ÷ 3), a converted writing-sample score (raw score X 4), and mastery status on the exit-level writing competencies were also reported.

Correspondence between the TABS Objectives and the District's Baseline

In the previous section it was stated that the TABS tests were designed specifically to measure the state-mandated essential reading, writing, and mathematics objectives. That is, relatively explicit test specifications were constructed to define the essential objectives, and congruent test items were developed from the specifications to measure the objectives. This combination of explicit specifications plus congruent test items results in test scores that accurately describe what a student can or cannot do in terms of the essential objectives. Individual student scores can indicate the essential objectives on which a student may need enrichment or remediation. Scores aggregated for schools and for the District can be used to guide instructional improvement efforts. For example, relatively poor District-wide performance on a particular objective may indicate ineffective instruction in that area. Subsequent efforts can be designed to remedy the problem.

However, before the TABS scores are used for such diagnostic purposes, a correspondence must be made between the objectives measured by the TABS and the District's baseline objectives. For example, it would not make any sense to use the TABS results to identify weak areas of instruction when the areas identified are not a part of the local curriculum. A determination of the correspondence between the two sets of objectives would provide a framework within which to interpret TABS results. Relatively strong or weak performances on specific objectives could be interpreted in light of the curriculum emphasis given to those objectives.

Other reports (Anthony & Sheehan, 1980; Sheehan & Anthony, 1980) have determined the degree of correspondence between the TABS objectives in reading, mathematics, and writing and the District's baseline. Specifically, TABS entry-level (mid-point, exit-level) objectives in reading were compared with baseline objectives at Levels K through 3 (K through 5, K through 8) in reading, thinking, study skills, and literature. Entry-level (mid-point, exit-level) objectives in writing and mathematics were compared with K-3 (K-5, K-8) baseline objectives in writing and mathematics, respectively.

Overall, it was concluded that there is an extremely high degree of correspondence between the District's baseline objectives and the objectives measured by the TABS tests. The correspondence is essentially complete in reading and almost complete in mathematics and writing. Various combinations of K-3 reading, thinking, study skills, and literature baseline objectives correspond to the 10 TABS entry-level reading objectives. Likewise, various combinations of K-5 and K-8 reading, thinking, study skills, and literature baseline objectives correspond to the 11 TABS mid-point and the 11 TABS exit-level reading objectives, respectively.

Nine of the 10 TABS entry-level mathematics objectives have a corresponding K-3 mathematics baseline objective (or objectives). The remaining TABS entry-level mathematics objective (select units of measure) is incompletely covered by the K-3 mathematics baseline. All of the 12 TABS mid-point mathematics objectives have a corresponding K-5 mathematics baseline objective (or objectives). There is only one of the 11 TABS exit-level mathematics objectives which does not have a corresponding K-8 baseline objective (or objectives). The exit-level TABS objective not covered by the baseline is "solve personal finance problems."

All of the TABS entry-level writing objectives correspond to K-3 writing baseline objectives. Eight of the nine TABS mid-point writing objectives correspond to K-5 writing baseline objectives. One TABS mid-point writing objective (appropriate response--purpose/audience) has only an indirectly corresponding K-5 writing baseline objective. At the exit level, seven of the nine writing objectives are covered by the District's K-8 writing baseline. One exit-level writing objective (capitalization) is incompletely covered by the K-8 writing baseline, and "appropriate response--purpose/audience" is again only indirectly covered.

The existing correspondence between the District's baseline and the TABS objectives is high enough so that students should have been exposed to essentially all of the TABS tests' content by the time the tests are administered (if the students were working on-level). This means that the TABS results should be useful to District personnel. At the student level they could be used to indicate areas in need of enrichment or remediation. At the campus or District level the TABS results could be used to identify instructional strengths and weaknesses. That is, they could be used to identify the subset of objectives on which instruction has been relatively ineffective. This information could then be used to design instructional improvement strategies.

Correspondence between the TABS Tests and the BOAT

The District has its own minimum competency testing program, the Basic Objectives Assessment Test, Levels 3, 6, and 8-12. While the BOAT and the TABS programs were developed from different perspectives, it was possible to determine their similarities and differences (Anthony & Sheenan, 1980). The actual levels of the tests that were compared are as follows:

1. BOAT Level 3 with TABS Entry Level
2. BOAT Level 6 with TABS Mid-Point
3. BOAT Level 8-12 with TABS Exit Level

The similarities and differences that these comparisons revealed are summarized in the subsequent sections.

BOAT Level 3/TABS Entry Level

The TABS measures performance on basic skills in reading, mathematics, and writing. The BOAT measures performance on basic skills in reading, mathematics, science/health, and social studies. Thus the TABS measures writing performance while the BOAT does not, and the BOAT measures science/health and social studies performance while the TABS does not. The overlap between the tests is in reading and mathematics. The extent of the overlap is explained below.

1. One (10%) of the 10 entry-level TABS reading objectives has a corresponding Level 3 BOAT reading objective.
2. Seven (70%) of the 10 entry-level TABS mathematics objectives have a corresponding Level 3 BOAT mathematics objective.
3. One (50%) of the two Level 3 BOAT reading objectives has a corresponding entry-level TABS reading objective.
4. Seven (58%) of the 12 Level 3 BOAT mathematics objectives have a corresponding entry-level TABS mathematics objective.

BOAT Level 6/TABS Mid-Point

The TABS measures performance on basic skills in reading, mathematics, and writing. The BOAT measures performance on basic skills in reading, mathematics, science/health, and social studies. Thus the TABS measures writing performance while the BOAT does not, and the BOAT measures science/health and social studies performance while the TABS does not. The overlap between the tests is again in reading and mathematics. The extent of the overlap is explained below.

1. One (9%) of the 11 mid-point TABS reading objectives has a corresponding Level 6 BOAT reading objective.
2. Eight (67%) of the 12 mid-point TABS mathematics objectives have a corresponding Level 6 BOAT mathematics objective.
3. One (33%) of the three Level 6 BOAT reading objectives has a corresponding mid-point TABS reading objective.
4. Nine (90%) of the 10 Level 6 BOAT mathematics objectives have a corresponding mid-point TABS mathematics objective.

BOAT Level 8-12/TABS Exit Level

The TABS directly measures performance on basic skills in reading, mathematics, and writing. The BOAT indirectly measures performance on basic skills in reading, mathematics, science/health, and social studies. That is, the BOAT measures the application of the four basic skill areas in seven functional areas of everyday life. The functional areas are consumerism, community, medical, home, employment, government, and information services. Thus the two tests differ structurally. The focus of the TABS is on basic skills, while the focus of the BOAT is on the application of basic skills.

The differences and similarities in the skill areas which are measured are the same as those described for the previous comparisons. That is, the TABS measures writing performance while the BOAT does not, and the BOAT measures science/health and social studies performance while the TABS does not. The areas of overlap are in reading and mathematics. The extent of the overlap is as follows:

1. One (9%) of the 11 exit-level TABS reading objectives has a corresponding Level 8-12 BOAT reading objective.
2. The 11 exit-level TABS mathematics objectives have a corresponding Level 8-12 BOAT mathematics objective.
3. One (14%) of the seven Level 8-12 BOAT reading objectives has a corresponding exit-level TABS reading objective.
4. The seven Level 8-12 BOAT mathematics objectives have a corresponding exit-level TABS mathematics objective.

District Results from the 1979-80 Testing

The TABS tests measuring the mid-point objectives were administered to all of the eligible fifth graders in the District during February and March of 1980. At the same time all eligible ninth graders received the tests which measured the exit-level objectives. Those ninth-grade students who did not meet the mastery standard in a particular content area will be given the opportunity to retake the test in that content area in the succeeding year or years. Physically or mentally impaired students, or students with learning disabilities that prevent skill mastery, were exempted from the testing.

This section (a) summarizes the District-wide results obtained from the administration of the TABS tests to the fifth- and ninth-grade students, and (b) compares the District results to the state results. Note that as the legislation mandated, the local data were made available to the public at the June meeting of the Board of Education. In addition, at the beginning of the 1980-81 school year student results will be made available to the student, the parent or guardian, and the school personnel directly involved with the student's educational program.

Reading

Table 4 reports the percent of fifth-grade students mastering each essential mid-point reading objective and the percent of ninth-grade students mastering each essential exit-level reading objective. Fifth-grade students performed well on four of the 11 reading objectives tested. These objectives were (a) use context clues; (b) follow written directions; (c) use index; and (d) recall facts, details. They performed less well on four objectives which required higher-order cognitive skills. These were (a) draw conclusions; (b) predict outcomes; (c) identify main idea; and (d) distinguish fact, non-fact.

Table 4

Percent of Fifth- and Ninth-Grade Students Mastering Essential Reading Objectives[a]

Mid-point reading objectives	Percent
Use context clues	77 (87)
Follow written directions	75 (83)
Use index	73 (82)
Recall facts, details	71 (84)
Use maps, charts	65 (80)
Identify character feelings	56 (72)
Sequence events	51 (66)
Draw conclusions	49 (66)
Predict outcomes	40 (53)
Identify main idea	38 (53)
Distinguish fact, non-fact	21 (36)

Exit-level reading objectives	Percent
Follow written directions	87 (92)
Use reference skills	76 (85)
Evaluate information	65 (78)
Perceive cause-effect	60 (73)
Use maps, charts	59 (75)
Sequence events	57 (72)
Identify main idea	57 (73)
Use parts of book	54 (58)
Draw conclusions	49 (66)
Make generalizations	45 (58)
Distinguish fact, non-fact	44 (58)
MASTERY OF TOTAL TEST	53 (70)

[a] Statewide results are reported in parentheses.

Ninth graders performed well on (a) follow written directions and (b) use reference skills. They, like fifth-grade students, performed less well on objectives which required higher-order cognitive skills. Performance was poorest on (a) draw conclusions; (b) make generalizations; and (c) distinguish fact, non-fact.

Overall, 53% of the ninth graders demonstrated mastery on the reading test.

Mathematics

Table 5 reports the percent of fifth-grade students mastering each essential mid-point mathematics objective and the percent of ninth-grade students mastering each essential exit-level mathematics objective. Fifth-grade students performed well on three of the 12 mathematics objectives tested. These objectives were (a) add whole numbers, (b) units of measure, and (c) interpret graphs. They performed less well on (a) geometric terms, figures; (b) solve word problems: X, ÷ ; (c) interpret place value; and (d) identify equivalent fractions.

Ninth-grade students performed well on two of the 11 mathematics objectives tested. These objectives were (a) add/subtract whole numbers and (b) read, interpret charts/graphs. They generally performed less well on four of the objectives. These objectives were (a) solve problems: +, -, X, ÷ ; (b) use ratio/proportion/percent; (c) use fractions/mixed numbers to +, -, X; and (d) solve personal finance problems. The realtively poor performance on "solve personal finance problems" could have been due to the lack of a corresponding baseline objective.

Overall, 49% of the ninth graders demonstrated mastery on the mathematics test.

Table 5

Percent of Fifth- and Ninth-Grade Students Mastering Essential Mathematics Objectives[a]

Mid-point mathematics objectives	Percent
Add whole numbers	78 (86)
Units of measure	76 (85)
Interpret graphs	70 (82)
Solve word problems: +, -	61 (77)
Subtract whole numbers	57 (76)
Sequence numbers	57 (70)
Divide whole numbers	51 (71)
Multiply whole numbers	50 (71)
Geometric terms, figures	46 (45)
Solve word problems: X, ÷	38 (55)
Interpret place value	36 (45)
Identify equivalent fractions	35 (44)

Exit-level mathematics objectives	Percent
Add/subtract whole numbers	85 (93)
Read, interpret charts/graphs	76 (87)
Multiply/divide whole numbers	66 (82)
Read maps	65 (76)
Solve problems using money	65 (77)
Use decimals to +, -, X, ÷	59 (75)
Use measurement units	54 (70)
Solve problems: +, -, X, ÷	40 (61)
Use ratio/proportion/percent	38 (50)
Use fractions/mixed numbers to +, -, X	38 (60)
Solve personal finance problems	35 (44)
MASTERY OF TOTAL TEST	49 (70)

[a] Statewide results are reported in parentheses.

Writing

Table 6 summarizes the fifth-grade student results on the essential writing objectives. Fifth-grade students performed well in the area of writing mechanics. Performance was especially high on four of the six objectives. These objectives were (a) spelling, (b) commonly used forms, (c) capitalization, and (d) sentence structure. The students performed less well on (a) correct English usage and (b) punctuation.

Over 90% of the fifth graders had acceptable handwriting. They also performed well in written composition. Over 80% had writing sample scores of 2 or higher.

Table 7 summarizes the ninth-grade student results on the essential writing objectives. The ninth graders also performed credibly in writing mechanics. Strongest performances were exhibited in (a) capitalization, (b) spelling, (c) commonly used forms, and (d) sentence structure.

Nearly 90% of the ninth graders had acceptable handwriting. However, 0% had scores of 3 or 4 and only 35% had a score of 2 on the writing sample. Even with allowances for problems in the writing task and its scoring guidelines, the ninth-grade students appear to be deficient in the area of persuasive writing. Lack of a directly corresponding baseline objective reinforces this conclusion.

Overall, 34% of the ninth graders demonstrated mastery on the writing test.

Exit-Level Performance across Content Areas

At the ninth-grade or exit level, 25% of the students demonstrated mastery in all three content areas (reading, mathematics, writing). Twenty-one percent demonstrated mastery in two of the content areas, and 17% demonstrated mastery in one content area. Thirty-eight percent of the DISD ninth graders did not demonstrate mastery in any of the content areas.

Table 6

Summary of Fifth-Grade Student Results on Essential Writing Objectives[a]

Objectives	Percent mastering
Spelling	89 (94)
Commonly used forms	83 (90)
Capitalization	76 (87)
Sentence structure	72 (82)
Correct English usage	48 (68)
Punctuation	48 (63)

Writing sample

	Percent acceptable	Percent hard to read	Percent illegible	Percent not ratable
Handwriting	91 (95)	6 (4)	0 (0)	2 (1)

	Percent 3 or 4	Percent 2	Percent 0 or 1
Organization of ideas Appropriate response—purpose/audience	45 (64)	40 (30)	14 (6)

[a] Statewide results are reported in parentheses.

Table 7

Summary of Ninth-Grade Student Results on Essential Writing Objectives[a]

Objectives	Percent mastering
Capitalization	79 (89)
Spelling	78 (84)
Commonly used forms	77 (82)
Sentence structure	71 (82)
Punctuation	55 (67)
Correct English Usage	51 (64)

Writing sample

	Percent acceptable	Percent hard to read	Percent illegible	Percent not ratable
Handwriting	88 (86)	6 (12)	0 (0)	7 (2)

	Percent 3 or 4	Percent 2	Percent 0 or 1
Organization of ideas Appropriate response--purpose/audience	0 (2)	35 (58)	64 (40)

MASTERY OF TOTAL TEST	34% (59%)

[a] Statewide results are reported in parentheses.

Performance by Demographic Categories

As expected, students performed better when they were English-speaking, when they participated in a gifted/talented program, and when they were not involved with a special education, bilingual, or Title I program. The demographic breakdowns also corroborated the relationship among academic performance, ethnic group membership, and social class. Specifically, this assessment as well as many others (e.g., see TEA, Note 3) have shown that minority students generally perform below White students on achievement measures. In addition, students from lower social class families generally perform below students from higher social class families.

Comparison with Statewide Results

Table 4 shows that the percent of students mastering each mid-point and exit-level essential reading objective is higher at the state level (TEA, Note 4) than at the local level. In addition, the percent of students mastering the exit-level reading test was 17% higher at the state level (70% vs. 53%).

Table 5 shows that for 11 of the 12 mid-point essential mathematics objectives and for all of the exit-level essential mathematics objectives student performance was higher at the state level. Only on "geometric terms, figures" did DISD students perform at a higher level than their peers statewide (46% mastery vs. 45% mastery). In terms of the exit-level mathematics test, 70% of the students demonstrated mastery at the state level while only 49% of the DISD students demonstrated mastery.

Similar performance differentials were apparent in writing (Tables 6 and 7). The fifth- and ninth-grade performance levels on individual writing objectives were higher statewide than in the DISD, and more students from across the state than in the DISD mastered the exit-level writing test (59% vs. 34%).

There are probably a variety of reasons (all to some degree speculative) why the performance of DISD students, as a group, was lower than the performance of students statewide. For example, one reason could be the composition of the District. Specifically, the DISD has a larger percentage of minority fifth- and ninth-grade students than the state (66% vs. 40%). The DISD also has a larger percentage of fifth- and ninth-grade students from lower-class families than the state (40% vs. 30%). These ethnic and social class differences would lead one to predict that the performance of DISD students would be lower than the performance of students statewide. Additional reasons for the lower performance might involve the District's instructional programs. For example, other school districts might have placed a greater emphasis on teaching the TABS objectives.

Concerns with the TABS Testing Program

The TABS testing program has several attractive features. First, there is almost an exact correspondence between the essential objectives measured by the TABS tests and the District's baseline. This means that the TABS tests measure aspects of instruction which are relevant for the students, teachers, and administrators in the Dallas Independent School District. Second, the testing program was purposely designed to yield scores which indicate levels of performance on the essential objectives. These scores can be used to diagnose an individual student's strengths and weaknesses, or, when they are aggregated at the campus and district levels, they can be used to evaluate the effectiveness of instructional programs.

However, in spite of these positive aspects, the TABS testing program currently has a number of unresolved problems. These problems may reflect the newness of the program, and hopefully they will be corrected in succeeding years. In any case, they must be enumerated to put the current testing effort in proper perspective.

One of these problems is the writing samples and their scoring procedure. Reporters from the Daily Iowan brought out that the writing tasks may not have been compatable with the scoring system, and students were never informed of the guidelines by which their writing would be scored (Lewis & Miale, 1980a, 1980b). This latter point is especially important when one considers that to some degree all scoring guidelines are arbitrary. Certainly the guidelines used to judge the writing samples were not universally held standards of exemplary composition.

In addition, The Daily Iowan contends that there were scoring irregularities (Drury & Salcetti, 1980; Miale, Lewis, Salcetti, & Drury, 1980). They allege that (a) the guidelines changed throughout the scoring process, (b) writing samples were not always rescored after changes were made in the guidelines, and (c) some workers violated scoring procedures. It should be pointed out that TEA has not concurred with these alleged scoring irregularities, nor have they been substantiated. However, they are of such a serious nature that they must be reported.

At the very least, TEA should review the content of the writing tasks in light of the first year's results. For example, the discrepancies between fifth- and ninth-grade performance levels may indicate that persuasive writing (the ninth-grade task) is not a basic skill. In addition, because a writing task represents a relatively novel testing situation, the scoring guidelines should be explained to the students before they are asked to begin the task.

A second problem is a lack of technical documentation. A testing program as widely disseminated and as the important as the TABS should provide technical information such as that specified by the AERA/APA/NCME Test Standards. In addition, technical data specific to criterion-referenced tests should also be included. These data would include measures of item congruence and representativeness, indicators of sensitivity to instruction, and evidence concerning item uniformity and consistency of decision making.

Note that if such data had been provided along with the TABS tests, it would have been possible to judge the credibility of the allegations concerning the testing program. For example, interrater reliability and stability evidence could have been used to judge the credence of the charges that there were irregularities in the writing sample scoring process.

A third problem concerns the test administration procedures. The time of testing was less than optimal. The testing dates coincided with the end of a term and with Texas Public Schools week. The requirement that teachers responsible for a particular content area not be allowed to administer a test in that area presented logistic problems in many schools. Quite simply, it was very difficult to adhere to the recommended guidelines and efficiently administer the tests.

Finally, the reports sent to local districts by TEA should provide more information, and the quality control of the data could be improved upon. For example, the TABS District Demographic Summary Report did not provide performance data by demographic category at the objective level. The data tape which was sent to the District and should have been a source for constructing more detailed demographic reports was incomplete and could only be used to develop somewhat inaccurate detailed demographic reports (see Sheehan & Anthony, 1980, for copies of these reports). In addition, there were obvious cases of miscodings (ninth graders classified as Title I and gifted/talented program students) which were not detected during the data processing and which the local districts were not given an opportunity to identify.

The Validity of the TABS Tests

Users of the TABS should be concerned with the tests' content validity, construct validity, and decision validity. Content validity is the extent to which (a) each item measures some aspect of the objective it was written for, (b) each item is technically sound, and (c) the set of items measuring an objective measures all relevant aspects of the objective (Hambleton, 1980). Construct validity is the extent to which the test scores measure what they are supposed to measure. Decision validity refers to the extent to which test scores can be used to make accurate classification decisions (e.g., master, nonmaster decisions).

Evidence concerning the three types of validity should have been presented with the technical documentation which should have accompanied the TABS tests. However, in lieu of this technical support an attempt was made to use District TABS data to formulate validity evidence (Anthony & Sheehan, 1980). It was not possible to develop any content validity evidence because the TABS test items and the specifics of the test construction process were never released to the public. However, it was possible to formulate a limited amount of construct and decision validity evidence.

Two aspects of construct validity were considered. These were (a) the internal consistency of the TABS and (b) the relationships among the TABS scores and measures of similar and different characteristics. Internal consistency assessment should be the initial step in determining construct validity. Unless performance on each of the components (items, objectives) of a test is related, it cannot be argued that the whole test measures some general underlying construct.

Without item data our internal consistency assessment was limited to the objective level. The internal consistency that was determined was consistency of performance across the objectives in a particular content area (mathematics, reading, writing). That is, students who master a particular objective should also perform well on tests measuring other objectives in the same area if the set of objectives pertains to some underlying construct. Likewise, students who do not master a particular objective should perform less well on tests measuring the other objectives in the same area if all of the objectives relate to some underlying construct. Thus, for any one objective masters and nonmasters of the objective should exhibit different levels of performance on tests measuring the other objectives in that content area if all of the objectives are aspects of the same underlying construct and, hence, as a group are internally consistent.

For each of the TABS mid-point (and exit-level) reading (writing, mathematics) objectives, performance on the other reading (writing, mathematics) objectives (exclusive of performance on the particular reading objective) was computed for masters and nonmasters of the objective. These analyses indicated that for each test the level of performance on one of the objectives was related to the level of performance on the remaining objectives. Thus there is evidence to support the claim that the TABS tests are internally consistent, and each test measures a general underlying construct.

If the TABS tests are measuring what they purport to measure, one would expect the TABS test scores to correlate well with other measures of the same or similar skills. Likewise, one would also expect the TABS tests to correlate less well with measures of different skills. To examine the relationships between the TABS tests and measures of similar as well as dissimilar skills, the TABS test scores were correlated with scores of other achievement batteries. Specifically, the mid-point TABS test scores were correlated with Iowa Tests of Basic Skills (ITBS) scores. The exit-level TABS test scores were correlated with ITBS, BOAT, and Tests of Achievement and Proficiency (TAP) scores. (Note that Table 8 reports the intercorrelations among the exit-level TABS and the Level 8-12 BOAT scores.) Generally, the correlations involving the TABS tests and the other achievement measures followed patterns one would predict if the TABS tests were construct valid. Each mid-point and exit-level TABS test tended to correlate slightly higher with achievement measures of similar constructs and slightly lower with achievement measures of dissimilar constructs. For example, the TABS mid-point writing measures (writing multiple-choice measures and writing sample measure) correlated slightly higher with the ITBS language tests than with the ITBS mathematics tests.

Students are classified as masters or nonmasters of minimum reading, writing, and mathematics competencies as a result of their scores on the TABS exit-level reading, writing, and mathematics tests. To validate these decisions their correspondence with levels of criterion behavior was determined. The one set of criterion behaviors available was BOAT scores from 1978-79. While the BOAT is by no means the perfect criterion for validating the TABS decision classifications, one would still expect some level of agreement between the BOAT and the TABS decisions because some of the same skills are measured by the tests.

The percentages of consistent mastery classifications on the BOAT and the TABS exit-level reading, writing, and mathematics tests were 73.2, 73.2, and 73.9, respectively (Tables 9, 10, and 11). For example, 73.2% of the students who were classified as masters or nonmasters on the BOAT were also classified in the same way on the TABS exit-level reading test. Likewise, 73.2% of the BOAT mastery classifications were the same as those made on the TABS exit-level writing test, and 73.9% of the BOAT mastery classifications were the same as those made on the TABS exit-level

Table 8

Intercorrelations Among Exit-Level TABS and Level 8-12 BOAT Scores[a,b]

Score	2	3	4	5	6	7	8	9	10	11	12	13	14
1. TABS Total Reading	77	77	57	28	73	71	77	69	72	63	68	65	82
2. TABS Writing Multiple Choice		70	53	28	80	66	70	65	66	59	61	58	75
3. TABS Total Mathematics			52	24	66	74	71	61	68	59	63	62	77
4. TABS Writing Sample				45	93	48	52	47	49	44	46	43	55
5. TABS Handwriting					44	22	22	24	21	19	19	17	24
6. TABS Total Writing						62	66	60	63	56	58	55	71
7. BOAT Consumerism							78	69	73	65	65	64	88
8. BOAT Community								77	77	67	71	67	92
9. BOAT Medical									71	63	63	58	83
10. BOAT Home										69	71	67	89
11. BOAT Employment											66	62	80
12. BOAT Government												70	84
13. BOAT Information													80
14. BOAT Total													

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[a] All correlations are significantly greater than zero at the .05 level.
[b] Decimals have been omitted.

Table 9

Number and Percent of Students
Jointly Classified into Two Mastery States
on the BOAT and the TABS Exit-Level Reading Test

BOAT TABS Reading Test		Mastery State				Marginal Percent
		Master		Nonmaster		
		Number	Percent	Number	Percent	
Mastery State	Master	2752	30.8	2100	23.5	54.4
	Nonmaster	289	3.2	3783	42.4	45.6
Marginal Percent			34.1		65.9	

Table 10

Number and Percent of Students
Jointly Classified into Two Mastery States
on the BOAT and the TABS Exit-Level Writing Test

BOAT TABS Writing Test		Mastery State				Marginal Percent
		Master		Nonmaster		
		Number	Percent	Number	Percent	
Mastery State	Master	1912	21.4	1260	14.1	35.5
	Nonmaster	1129	12.7	4623	51.8	64.5
Marginal Percent			34.1		65.9	

Table 11

Number and Percent of Students Jointly Classified into Two Mastery States on the BOAT and the TABS Exit-Level Mathematics Test

BOAT / TABS Mathematics Test		Mastery State				Marginal Percent
		Master		Nonmaster		
		Number	Percent	Number	Percent	
Mastery State	Master	2595	29.1	1887	21.1	50.2
	Nonmaster	446	5.0	3996	44.8	49.8
Marginal Percent			34.1		65.9	

mathematics test. In addition, 52.4% of the mastery decisions were consistent across the BOAT and all three TABS exit-level tests (Table 12). Specifically, 33.6% of the students did not master the BOAT or any of the TABS tests, and 18.8% of the students mastered the BOAT and all three TABS tests. Thus, the same mastery decisions are generally made as a result of BOAT or TABS scores.

Conclusions and Recommendations

This interpretative analysis has brought out several points concerning the TABS assessment program. These points are listed below.

1. The Texas Assessment of Basic Skills developed from the efforts of the State Board of Education and the Legislature. The State Board of Education established student learning goals and emphasized accountability in terms of those goals. Groups in the legislature called for the development of a statewide minimum competency testing program. As a result of these efforts, TABS was created.

2. The TABS tests were specifically designed to measure state-mandated essential objectives in reading, writing, and mathematics. Because of their construction, test scores can be used to determine the essential objectives on which students may need enrichment or remediation.

3. There is a high degree of correspondence between the TABS objectives and the District's baseline. Thus, if a student is working on-level his or her TABS scores can be used to indicate baseline objectives on which he or she may need enrichment or remediation. At the school and District levels the TABS scores can be used to evaluate the effectiveness of instructional programs.

4. The TABS and the BOAT are two different testing programs which were developed from different perspectives. Consequently, while there is a degree of overlap between the batteries, they also exhibit considerable differences.

5. The 1979-80 TABS results indicate that District reading, writing, and mathematics instruction should focus on the following objectives:

    a. Reading
        Mid-Point
            (1) Draw conclusions
            (2) Predict outcomes
            (3) Identify main idea
            (4) Distinguish fact, non-fact

Table 12

Number and Percent of Students Jointly Classified into Two Mastery States on the BOAT as a Function of Mastery Classifications on the TABS Exit-Level Reading, Writing, and Mathematics Tests

TABS Mastery Classifications[a]	BOAT					
	Master		Nonmaster		Total	
	Number	Percent	Number	Percent	Number	Percent
Nonmaster, Nonmaster, Nonmaster	117	1.3	3001	33.6	3118	34.9
Nonmaster, Nonmaster, Master	80	.9	453	5.1	533	6.0
Nonmaster, Master, Nonmaster	38	.4	212	2.4	250	2.8
Master, Nonmaster, Nonmaster	148	1.7	569	6.4	717	8.0
Nonmaster, Master, Master	54	.6	117	1.3	171	1.9
Master, Nonmaster, Master	784	8.8	600	6.7	1384	15.5
Master, Master, Nonmaster	143	1.6	214	2.4	357	4.0
Master, Master, Master	1677	18.8	717	8.0	2394	26.8
Marginal Percent		34.1		65.9		100.0

[a] The TABS mastery classifications are reported from left to right for reading, writing, and mathematics.

a. Reading (continued)
   Exit Level
      (1) Draw conclusions
      (2) Make generalizations
      (3) Distinguish fact, non-fact

b. Writing
   Mid-Point
      (1) Correct English usage
      (2) Punctuation

   Exit Level
      (1) Organization of ideas and appropriate response-purpose/audience (persuasive writing)

c. Mathematics
   Mid-Point
      (1) Geometric terms, figures
      (2) Solve word problems: X, ÷
      (3) Interpret place value

   Exit Level
      (1) Solve problems: +, −, X, ÷
      (2) Use ratio/proportion/percent
      (3) Use fractions/mixed numbers to +, −, X
      (4) Solve personal finance problems

6. District performance levels on the TABS were consistently lower than statewide performance levels. Larger percentages of minority and lower-class students in the District than in the state were among the factors that contributed to this performance differential.

7. The TABS testing program currently has a number of unresolved problems. These problems include (a) the content of the writing tasks and the mechanics of their administration, (b) the scoring of the writing tasks, (c) a lack of technical documentation, (d) the test administration procedures, (e) the report formats, and (f) the quality control of the data. These problems may reflect the newness of the program, and hopefully they will be corrected in succeeding years.

8. There is some evidence for the validity of the TABS tests. In terms of construct validity, the TABS tests are relatively homogeneous, and their correlations with other achievement measures tend to follow hypothesized patterns. In terms of decision validity, the same decisions are generally made as a result of TABS scores or BOAT scores.

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An Interpretive Analysis of System-wide Achievement Data Partners in Learning, 1979-80

C. LaVor Lym
N. Blyth Riegel

The 1979-80 school year was the fourth year of implementation of the Partners in Learning Program, initiated in the 1976-77 school year. There were four basic components: reading, writing, and mathematics progress, and the parental involvement component. All four of these components were implemented during the 1979-80 school year in grades K-8.

The goal of the program was to form a partnership among the school, home, and community to shoulder responsibility for the progress of the student in the areas of reading, writing, and mathematics. Progress along the District baseline was measured using criterion-referenced tests in the three subject areas. Teachers monitored student progress throughout the year on these instruments and marked student progress on forms specially developed for this purpose, which then were shared with the parents during biannual conferences.

The biannual parent conferences were held in the fall and the spring. The Student Progress Forms were reviewed at these times with the parent. Progress on the District baseline objectives in the subjects of reading, writing, and mathematics was delineated and possible means were discussed by which the student's progress could be improved. Parents were encouraged to contribute to the child's learning in the three subject areas at home, and instructional materials were made available to any parents who wished to utilize them.

The 1979-80 evaluation of the Partners program focused on the three subject areas--reading, writing, and mathematics. In addition, a brief Teacher Survey was included in the evaluation design, investigating the utility of the District's criterion-referenced and norm-referenced tests and critiquing the parent conference design and Progress Forms. A random sample stratified by subdistrict was drawn from each of grades three, six, and eight, using the school as the sampling unit. All reading, writing, and mathematics Progress Forms for the approximately 4,000 students selected were analyzed. In addition, the teachers of these students in the three subject areas were asked to complete and return the Teacher Survey. Over 300 teachers' responses were tallied and analyzed.

Performance in 1979-80 for Partners in Learning

Total District

Table 1 shows the levels of performance of third, sixth, and eight graders on the various criterion-referenced tests used for measuring reading, writing, and mathematics skills for Partners in Learning. Percentages of students working toward mastery of objectives two or more years below their grade placement, one year below grade placement, or at or above grade placement are shown in Table 1. For grades six and eight, multiple-level reading tests were used (Level B of the Survey Tests of Applied Reading Skills for grades five and six, and Level C for grades seven and eight). Consequently, the percentages of students working one year below level, and at grade level and above, were not available in reading.

Table 1

Levels of Performance for Partners in Learning in 1979-80

Subject/ Grade	Level Relative to Grade Placement		
	Two or More Years Below	One Year Below	On Level or Above
Reading			
3	14%	27%	58%
6	34%	NA	NA
8	54%	NA	NA
Writing			
3	16%	34%	50%
6	45%	27%	27%
8	59%	19%	22%
Mathematics			
3	1%	11%	88%
6	13%	24%	63%
8	59%	13%	28%

Note. Percentages for "One Year Below" and "On Level or Above" were not available (NA) in Reading for grades 6 and 8 because of the use of multiple-level tests. Combining the categories results in a classification of "at most one year below grade placement," in which 66% and 46% of the students were placed for grades 6 and 8, respectively.

Some important trends are readily discernable from the data presented in Table 1. First, as might be expected, the dispersion of scores in each subject area increases as grade level increases. That is, the range of grade levels across which students function becomes larger as grade level increases. A striking example is provided in mathematics, wherein the percentage of third-grade students who functioned two or more years below level was 1, compared to 59 for eighth-grade students. On the other hand, 88% of the third graders were on or above level in mathematics, compared to 28% of the eighth graders.

If, as a guide for interpretation, acceptable performance in a particular subject area is defined as a condition where at least 50% of the students are working toward mastery of objectives on or above the level of grade placement, then the data in Table 1 indicate that the performance of third-grade students was acceptable in writing, somewhat above acceptable in reading, and very high in mathematics. The vast majority of third graders (84% to 99%) were at most one year below level. Among sixth graders performance in mathematics was high (63% on or above level), while writing performance was substantially below the acceptable level (27% on or above level). Reading performance could not be accurately assessed because of the multiple-level tests. However, based on the percentages of students who were two or more years below level, reading performance appears to have been higher than writing performance but not nearly as high as performance in mathematics. Levels of performance were lowest among eighth graders, with mathematics only slightly exceeding writing. Again, reading could not be measured precisely, but it would appear that the level of reading performance was very similar to that of writing and mathematics. Universally the performance levels for eighth graders was below the acceptable level.

Subdistricts

The aforementioned results apply to the total District, that is, the aggregation of all achievement data. A separate analysis was also performed for each subdistrict. Because of the sampling scheme employed in the collection of data, and the numbers of students included in the different subsamples, subdistricts represent the smallest unit for which results can be reported with an acceptable level of confidence.

Some differences were noted among subdistricts in the performance levels of students for reading and mathematics, but those differences were generally small and not worthy of elaboration. Performance in writing, on the other hand, showed substantial variation among subdistricts. At the third-grade level the percentages of students by subdistrict working on or above grade level ranged from 30% to 72%. The Northeast and Southeast Subdistricts showed the highest figures, with 72% and 61%, respectively. The Northwest and East Oak Cliff Subdistricts showed approximately 40% of their third-grade students working on or above level, while approximately 30% of the third graders in the Southwest Subdistrict were on or above level. At grade six the Southeast and East Oak Cliff Subdistricts dropped to less than 15% working on or above grade level, while the other subdistricts showed percentages in the forties. The trend was similar at grade eight, but the figures were even lower: East Oak Cliff and Southeast showed less than 10% each, and the other subdistricts showed percentages near 30%.

Longitudinal Assessment for Partners in Learning

The previous discussion, and the data in Table 1, relate to the attainment of baseline objectives by third-, sixth-, and eighth-grade students during 1979-80. To place these results in proper perspective, a longitudinal assessment is necessary to determine whether or not students, over time, are moving toward acceptable levels of performance on the criterion-referenced tests. Such an assessment should contrast different classes of students across successive years (quasi-longitudinal analysis), as well as examine the growth of the same students across years (cohort analysis) and the same class of students across years (quasi-cohort analysis). Because the criterion-referenced tests for Partners in Learning were not machine-scored with linkage to the District's Burroughs 6700 computer, a readily accessible database was not available. Therefore, the only type of longitudinal analysis which was feasible to implement was the quasi-longitudinal type. The results of that analysis are reported below.

The quasi-longitudinal assessment of performance on the baseline objectives for Partners in Learning is summarized in Table 2. Specifically, the performance of third-, sixth-, and eighth-grade students is examined across a three-year period, 1977-78 to 1979-80. Because of the manner in which the criterion-referenced tests were implemented, data were not available for grades six and eight in either reading or writing, nor for grade eight in mathematics in 1977-78. Shown in Table 2 are the percentages of students who were working on or above level in the three subject areas at each grade level across the three years. Again, acceptable performance should be considered as 50% or more of the students functioning on or above level.

The reading performance of third graders has shown steady improvement across years, with a substantial gain between 1977-78 and

Table 2

Quasi-Longitudinal Assessment of Performance for Partners in Learning

Subject/ Grade	Percent of Students on Level or Above		
	1977-78	1978-79	1979-80
Reading			
3	46%	55%	58%
6[a]	NA	54%[b]	47%[b]
8[a]	NA	34%[b]	47%[b]
Writing			
3	51%	44%	50%
6	NA	13%	27%
8	NA	15%	22%
Mathematics			
3	87%	73%	88%
6	39%	53%	63%
8	NA	0%	28%

Note. NA = Not Available

[a] Multiple-level tests, 5-6 and 7-8

[b] Percentage of students at most one year below grade placement

1978-79 (+11 points) and a modest gain from 1978-79 to 1979-80 (+3 points). Writing and mathematics performance for third graders, on the other hand, can be seen to have declined substantially from 1977-78 to 1978-79 (-7 and -14, respectively) and then to have recovered in 1979-80. Except for reading performance in 1977-78 and writing performance in 1978-79, all third-grade levels of performance were acceptably high.

Reading and writing performance trends for sixth graders can be examined for only two years, 1978-79 and 1979-80. A complete three-year trend is available for grade six mathematics. The reader should note, however, that the percentages for reading pertain to the students who were at most one year below grade placement, and thus the judgmental criterion of 50% for acceptable performance does not apply in those cases. Reading performance at sixth grade declined between 1978-79 and 1979-80 (having fallen off by 7 points), while writing showed strong improvement (an increase of 14 points) in those same years. Mathematics performance by sixth graders shows a strong, consistent trend of improvement, moving from unacceptable in 1977-78 to solidly acceptable in 1979-80.

Performance trends for grade eight can be examined for only 1978-79 and 1979-80. Again, the percentages for reading show the students who were at most one year below level, rather than the percentage on or above level. Substantial increases were noted for reading and mathematics at grade eight between 1978-79 and 1979-80 (+13 points and +28 points, respectively). Performance in writing also improved (+7 points) at grade eight. Performance levels in 1979-80 remained well below the acceptable level, however.

Results of the Teacher Survey

The teachers of the students sampled in the Partners evaluation were given a brief questionnaire to complete. The results of the questionnaire were very enlightening. Two parent conferences per year to cover the student's progress on the baseline were preferred two to one to a single conference per year, either in the fall or in the spring. In addition, over three-fourths of the sample felt that parents understood the information on the Progress Forms at least adequately.

The remaining items on the survey related to the District criterion-referenced and norm-referenced tests and their utility in the classroom. Of the six criterion-referenced tests listed on the survey, all but one of them were judged as at least moderately helpful for diagnosing weaknesses, monitoring progress, and compiling information by four-fifths or more of the sample. The sixth test, the Primary Acquisition of Language (PAL) was judged as at least moderately helpful by 70% or more of the teachers sampled for all three classroom functions. The norm-referenced tests on the survey were all judged as at least moderately helpful by over 70% of the teachers sampled in all three functions. The general implication from the Teacher Survey was that the District's tests are helpful in the classrooms of the vast majority of teachers for diagnosing weaknesses, monitoring progress, and compiling information.

Summary and Discussion

Partners in Learning seeks to create a strong bond of shared responsibility between the home and the school for the academic achievement of students. Teachers assess the progress of students toward the District's baseline objectives, report the student's level of performance to parents through conferences, and solicit the assistance of parents, as appropriate, in improving the student's rate of progress. Thus, the program ensures that each student's progress toward mastery of the baseline objectives is documented, that parents are made aware of the achievements of their children, and that parents are given the opportunity to become involved in the education of their children. Riegel (IR80-011-31-30) reported in detail on the evaluation of Partners in Learning for 1979-80. Presented in this report, and summarized below, are the major findings of Riegel's study.

Progress Forms for a sample of approximately 4,000 students in grades three, six, and eight were analyzed to determine the progress of students throughout the District and in the five subdistricts toward the attainment of baseline objectives in reading, writing, and mathematics. In general, results indicated that as grade level increased the range of the levels of the objectives on which students were working also tended to increase. Thus, more third graders were working on third-grade objectives or objectives close to the third-grade level than was the case for sixth graders working on sixth-grade objectives. In turn, sixth graders deviated less from on-level objectives than eighth graders.

A growing deficit between grade level and the level of objectives on which students were working was also manifest as grade level increased. Levels of achievement ranged from acceptable to very high for third graders. Achievement of the sixth-grade mathematics objectives was high, while that for writing was substantially below the desired level. Reading also appeared to be below the desired level at the sixth grade, although the exact achievement level could not be precisely determined. Eighth-grade performance was the weakest among all grades, in that achievement was substantially below the desired level in all subjects. Generally speaking, performance in writing was substantially lower than that in reading, which was in turn somewhat lower than that in mathematics.

Longitudinal trends generally indicate that progress has been made over past years in increasing the percentages of students working at grade level or above. Especially encouraging are the results for mathematics, where strong upward trends are evident at the higher grade levels. The upward trend over years is encouraging in that significant gains have been made toward mastery of on-level objectives. However, some 25% of the students must show progress from below level to on level at the upper grades (six and eight) before achievement levels can be considered satisfactory. The data indicate a strong need for additional focus on the objectives in writing, since the results in writing are so much lower than those for either reading or mathematics.

Additional information gleaned from the evaluation of Partners in Learning related to the opinions of teachers regarding the utility of parent conferences and the feelings of teachers regarding the norm-referenced and criterion-referenced tests used in the District. Most teachers felt that parents understood the Progress Forms and that two conferences, versus a single conference, should be held with parents. The majority of teachers also expressed favorable opinions regarding the criterion-referenced and norm-referenced tests.

1979-80 Evaluation of the Partners in Learning Program

Riegel, N. B. Evaluation of the Partners in Learning Program, 1979-80 (IR80-011-31-30). November 1980.

An Interpretive Analysis of the
Teacher Selection and Evaluation
Processes, 1979-80

Wallace Carter, III

Two major managerial components related to the quality of classroom instruction are teacher evaluation and teacher selection. A new program for each of these components was implemented under the stewardship of the Personnel Services Department. The first program began in the fall 1976 and was designed to introduce certain elements of accountability and objectivity into teacher evaluation. The second program was intended to improve selection methods so that the probability of success on the job would increase for teachers who have been hired.

A series of studies have followed the development and implementation of these programs and have investigated their predictive validities in terms of quality of instruction and/or student achievement. The purpose of this paper is to summarize the most recent of these investigations and to point out the implications of noteworthy results.

Teacher Evaluation

The Teacher Evaluation Pilot Program (TEPP), in its fourth and final year of implementation, was intended to meet needs in two vital areas of education. First, TEPP was to enhance teacher competency through a constructive and relatively unbiased teacher evaluation process. Under this process, each teacher, with the assistance of an evaluation team comprised of local school personnel, drafted his/her own instructional and process goals for the school year; any teacher's failure to achieve those goals resulted in his/her receiving an "Unsuccessful" evaluation. The procedure was constructive in the sense that teachers provided considerable input for their own evaluations and also in the sense that professional assistance in meeting goals was readily available to each teacher. The second vital need to which TEPP was addressed was the upgrading of student achievement scores. This upgrading followed logically from the enhancement of teacher competency. In addition, the goals themselves were sometimes stated in terms of student achievement gains, blending well with the implementation of the Texas Education Agency (TEA) accreditation program which is designed to upgrade student outcomes at the school and district levels.

Implementation of TEPP

The 1979-80 TEPP study found the following results regarding program implementation:

> Eighty percent (80%) of the TEPP teacher sample indicated that they understood TEPP's features and policies; 69% of them felt that those who trained them were well-informed about TEPP's features and policies; and 61% believed that the evaluation teams in their schools were well-prepared for their responsibilities.
>
> Seventy-four percent (74%) of the teachers interviewed believed that the attitude of the evaluation team toward TEPP was positive. However, the percentage for middle school teachers (90%) was considerably higher than for senior high (68%) or elementary (61%) teachers. A substantial percentage of senior high (19%) and elementary (33%) teachers felt that the evaluation teams in their schools were neutral or apathetic toward TEPP.
>
> Eighty-one percent (81%) of the teacher sample felt that the evaluation team was fair (objective) when it conducted its evaluations, although the percentage for elementary teachers was much higher (94%).

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Sixty-four percent (64%) of them felt that the suggestions of the evaluation team for improvement were helpful. The percentage of elementary teachers who responded positively was lower (50%).

On a scale of 1 (low) to 9 (high) for conscientiousness level of the evaluation teams, the average rating assigned by the teachers in the sample was 6.6.

Teacher Attitudes toward TEPP

Teacher attitudes toward TEPP were assessed in terms of what the teachers felt were the benefits and drawbacks of the program. The great majority of teachers indicated some benefits from the program; only 13% felt that there were no benefits at all. By far the most frequently described benefit was assistance to the teacher in planning his/her work. Other benefits indicated include:

Communication among administrators and faculty members is improved.

The program can be instrumental in strengthening teacher competency, growth, and/or accountability.

The program helps determine a teacher's strengths and weaknesses.

The specific drawbacks mentioned most often by the teachers were excessive usage of time and overabundance of paperwork. The operation of the evaluation team, goal standards, and the writing of goals were the program features that received the most criticism. Other specific drawbacks mentioned include:

Observations are not frequent enough.

Scheduling of observations for the purpose of meeting specific goals is too difficult.

The goals are not very useful.

Student Achievement and TEPP

Between 1979 and 1980 the average gain in percentage of students who have passed the BOAT was 7% for TEPP senior high schools and 6.3% for control senior high schools. For middle schools, TEPP schools showed an average gain of only 3.6% while control schools achieved an average gain of 4%. At the elementary level, the control schools had greater gains (12.5%) than did the TEPP schools (10.7%). These small differences may be due to random error.

Another comparison that was made between TEPP schools and control schools involved an examination of the attainment of TEA goals. The TEA program prescribed that annual goals in functional literacy be set within all schools as gains in percentages of students who have passed the BOAT. At each senior high school, three goals were set, one for each of grades 9 through 11. Each middle school had one goal only, which was at the eighth-grade level. Elementary schools set two goals, one for third grade and one for sixth grade. Table 1 gives the frequencies of schools attaining TEA goals.

Table 1

Frequencies of TEPP and Control Schools Attaining
Varying Numbers of TEA Goals
(by School Level)

	Number of Goals Attained								
	Senior High				Middle		Elementary		
	None	One	Two	Three	None	One	None	One	Two
TEPP	1	3	3	1	6	3	2[a]	3	1
Control	1	6	2	3	10	3	1[a]	1[a]	4

[a] These K-3 schools each set one goal only, at the third-grade level.

These results indicate the following:

> At the senior high level, 50% of the TEPP schools, compared to 42% of the control schools, attained at least two TEA goals.
>
> A larger percentage of TEPP middle schools (33%) than control middle schools (23%) achieved TEA goals.
>
> Five of six control schools at the elementary level reached their TEA goals, whereas only one of six TEPP schools achieved its goals.

Interpretation

The large majority of the teachers apparently felt that TEPP had some benefits, but there were some indications that implementation was not completely successful. For instance, 11% of the responding teachers believed that those who trained them for the program were not well-informed about TEPP's policies, and 28% were not convinced that the evaluation teams were well-prepared for their responsibilities. In addition, 19% of the teachers in the sample described the attitude of the evaluation team toward TEPP as neutral, apathetic, or negative. Sixty-five percent felt that the team's suggestions for improvement were helpful, which is not a very high percentage considering the number of person-hours required to hold team conferences. Finally, operation of the evaluation team, the writing of goals, goal standards, and other aspects of the program received further criticism, most of which either reflected poor understanding of TEPP on the part of the respondents or indicated inadequate implementation of the program.

The comparison between achievement gains of TEPP schools and achievement gains of control schools was inconclusive. This may be attributable to inconsistent program implementation as well as a variety of other confounding variables (e.g., the implementation in some schools of other programs that may have influenced achievement gains). Perhaps with better-trained TEPP personnel, better monitoring of the program, a stronger emphasis on student achievement gains in the writing of goals, then a resurgence of TEPP would demonstrate some advantage in the area of student achievement.

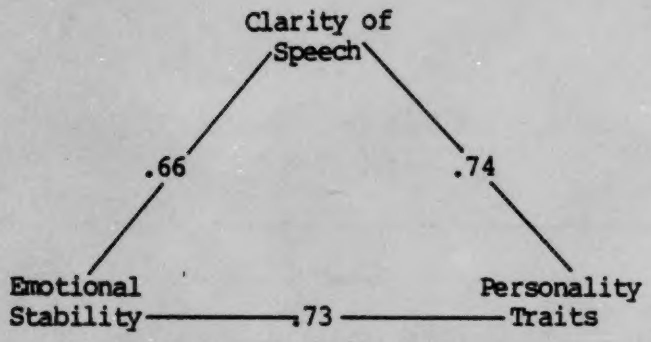
Teacher Selection

Four studies of the teacher selection process in DISD were conducted in the 1979-80 school year. Two of the studies investigated the validity of assigned scores on the Personnel Services Department Graded Evaluation form for teacher applicants (GEFTA). The other two studies examined the development and validity of new tests administered to teacher candidates.

Validity of Selection Variables - GEFTA

GEFTA is divided into two parts. Part I--the interview for teacher applicants-- is the most important part, statistically and pragmatically, for making selection judgments. It has been formalized so that scores are given on eight subscales: General Appearance, Clarity of Speech, Emotional Stability, Educational Background, Community Relations, Personality Traits, Goals and Philosophy, and Ability to Communicate. Part II is comprised of four subscales: Application, Educational Training, Experience, and References.

The highest correlations were found among Clarity of Speech, Emotional Stability, and Personality Traits. Their correlational pattern was as follows:



Each of these three subscales also had among the highest correlations with the interview total score and among the highest average correlations with the other seven attributes.

The correlation between Educational Training and References (r=.26) was the highest of the intercorrelations among the non-interview GEFTA variables, while the highest between interview and non-interview variables involved Educational Background (educational experience) and Educational Training (educational excellence) (r=.50). Table 2 presents the correlations between GEFTA and other selection measures.

Correlations between the eight interview subscale measures and other selection criteria were low to moderate. Apparently, these concurrent validity estimates indicate that little duplication exists between information from the interview process and data on other criteria. All but one of the interview subscales (Community Relations) were significantly related to at least one non-interview selection criterion. Of these, all but one had a highly significant relationship with one or more of the non-interview criteria.

Table 2

Pearson Correlations between the Eight Interview Subscale Measures and Other Selection Criteria

	Selection Criteria Other than Interview						
Interview Subscale	Application	Educ. Train.	Experience	Reference	PCT[a] Verbal	PCT[a] Math	Essay
General Appearance	.06	.08	−.14	.05	.22**	.23**	.10
Clarity of Speech	.18*	.29***	.06	.17*	.32**	.31***	.11
Emotional Stability	.13	.28***	.01	.06	.25**	.24**	.17*
Educational Background	.18*	.50***	.27**	.13	.40***	.31***	.11
Community Relations	.00	.11	−.10	.10	.10	.15	.03
Personality Traits	.19*	.33***	.13	.19*	.18*	.27**	.09
Goals and Philosophy	.12	.28***	−.03	.09	.15	.23**	.04
Ability to Communicate	.21*	.39***	.01	.20*	.31***	.29***	.21*

[a] Wesman Personnel Classification Test (PCT) subtest.

*$p < .05$
**$p < .01$
***$p < .001$

The interview attributes having the highest average correlations across the non-interview criteria include Educational Background, Ability to Communicate, Clarity of Speech, and Personality Traits (average r = .27, .23, .21, and .20, respectively). On the other side, the non-interview measures that had the most substantial average correlations across the interview measures were Educational Training, Wesman PCT-Math, and PCT-Verbal (average r = .28, .25, and .24, respectively). It is interesting that Wesman PCT-Math scores had a slight edge over PCT-Verbal scores in average correlations with interview subscales which are verbally oriented measures.

Predictive validity of GEFTA variables in terms of instructional quality. Some significant relationships were found between instructional quality as measured by observer ratings and several of the GEFTA subscales.

Table 3 presents the rank correlations between the two sets of variables for secondary school teachers. Educational Background and Educational Training had the highest relationships with quality of instruction. They were each significantly correlated with six of the nine instructional performance measures. It may be reasonable to expect that a teacher's ability to enrich instruction may reflect his/her performance and educational experience in college.

Table 3

Rank Correlations between GEFTA Subscales and Observation Category Ratings for Secondary School Teachers

Subscale	CL1	CL2	CL3	CL4	CL5	CL6	CL7	CL8	CL9
Interview									
General Appearance	.22**	-.05	.14	.09	.16*	.14	.07	.07	.00
Clarity of Speech	.16*	-.00	.14	.08	.16*	.06	.13	.12	.13
Emotional Stability	.14	-.04	.13	.02	.15	.09	.07	.02	.15
Educational Background	.16*	.16*	.14	.17*	.13	.16*	.21**	.21*	.09
Community Relations	.10	.00	.08	.06	.01	.04	.09	.06	.01
Personality Traits	.17*	-.10	.13	.03	.17*	.08	.04	.07	.20*
Goals and Philosophy	.08	-.09	.10	.02	.03	.10	-.01	-.01	.03
Ability to Communicate	.20*	.08	.19*	.15	.21*	.12	.14	.09	.13
Non-Interview									
Application	.07	-.07	.06	.06	.08	.07	.06	.05	.11
Educational Training	.06	.23**	.11	.18*	.16*	.21*	.17*	.16*	.01
Experience	-.10	.14	-.02	.10	-.01	.07	.04	.01	-.06
References	.08	.09	.08	.09	.07	.07	.12	.04	.00

Note. CL1 = Personable Leadership; CL2 = Elaboration/Integration Instruction; CL3 = Stimulation of Interest; CL4 = Mnemonic/Differentiation Instruction; CL5 = Student Oriented Integrity/Rapport; CL6 = Application/Generalization Instruction; CL7 = Information Delivery; CL8 = Clarity in Instruction; CL9 = Individual Student Orientation.

*p < .05
**p < .01

Generally, the interview subscale measures have predictive validity in terms of subsequent instructional quality. They also predict, albeit modestly, certain aspects of instructional performance that are, for the most part, logically connected with the criteria measured in the interview process. The exception is the lack of significant relationships between Clarity in Instruction and both Clarity of Speech and Ability to Communicate subscales of the interview.

The predictive validity pattern at the elementary school level is not so well-defined. Table 4 presents the rank correlations for the same sets of variables for elementary school teachers.

Although there is no impressive array of significant indicators in the table, three trends are apparent. First, Clarity of Instruction accounted for four of the seven significant relationships between the two sets of variables. The connection here seems to be apparent: the two attributes, Clarity of Speech and Ability to Communicate, significantly correlated with Clarity in Instruction. The relationship between Goals and Philosophy and Clarity in Instruction was the highest and the most significant one found. There is, however, no obvious explanation for this association.

Second, there was an almost consistent, though not substantial, negative relationship across the quality of instruction variables for General Appearance. A significant negative relationship appeared between this attribute and Individual Student Orientation. Additional information is required before attempts to explain this particular result can be made.

Third, Community Relations had the most consistently substantial and positive relationships with quality of instruction variables than did any

Table 4

Rank Correlations between GEFTA Subscales
and Observation Category Ratings for
Elementary School Teachers

Subscale	CL1	CL2	CL3	CL4	CL5	CL6	CL7	CL8	CL9
Interview									
General Appearance	-.07	-.07	-.10	-.15	-.14	-.03	-.08	.02	-.18*
Clarity of Speech	.02	.10	.04	.10	.08	.08	.08	.16*	.14
Emotional Stability	.03	.06	.07	.08	.09	.00	.08	.14	.13
Educational Background	.03	-.01	.16*	-.04	-.02	.12	-.03	.00	-.07
Community Relations	.14	.10	.12	.12	.09	.12	.14	.21*	.03
Personality Traits	.04	.08	.01	.05	.10	-.01	.09	.10	.16*
Goals and Philosophy	.05	.13	.09	.06	-.10	.08	.12	.21*	.12
Ability to Communicate	.01	-.01	.04	.05	.05	.01	-.01	.16*	.08
Non-interview									
Application	.17*	.09	.10	.10	.07	.21*	.06	.07	.01
Educational Training	.09	.03	.12	.10	.14	.05	.01	.00	.16*
Experience	-.06	-.07	-.01	-.06	-.05	-.13	-.04	-.17*	-.08
References	.10	.08	.07	.02	.12	.07	.09	.13	.13

Note. CL1 = Personable Leadership; CL2 = Elaboration/Integration Instruction; CL3 = Stimulation of Interest; CL4 = Mnemonic/Differentiation Instruction; CL5 = Student Oriented Integrity/Rapport; CL6 = Application/Generalization Instruction; CL7 = Information Delivery; CL8 = Clarity in Instruction; CL9 = Individual Student Orientation.

$^{*}p < .05$
$^{**}p < .01$

other interview measure. It is difficult to understand the etiology of this relationship, but it may have some antecedents in the level of parent participation at the elementary school level. This result contrasts with that obtained in the analysis of the secondary school data where it was found that Community Relations had the second lowest average correlation (average r = .05) with instructional quality measures.

There were other notable differences between the elementary and secondary school data regarding correlations between GEFTA subscale scores and the measures of instructional performance. Generally, the instructional ratings that were most correlated with the GEFTA subscales for the secondary school teachers tended to have the least correlations with the GEFTA subscales for the elementary school teachers, and vice versa. A similar trend occurred regarding particular subscale measures and their correlations with instructional measures. Also, out of all the relationships where significant correlations were obtained, only one overlapped across both school levels: the correlation between Personality Traits and Individual Student Orientation. These differential results by school level suggest the possibility that different criteria should have different emphases in assessing the qualifications of elementary as opposed to secondary school teacher applicants.

Predictive validity of GEFTA variables in terms of student achievement. Overall, the GEFTA subscales have little predictive validity in terms of student academic achievement. Some significant relationships emerged, mainly at the senior high school level, but none of these can be considered substantial.

Significant rank correlations between student achievement gain scores and the GEFTA subscale measures are provided in Tables 5 and 6 for senior high and elementary school levels, respectively. Only one significant result was found at the middle school level (between ITBS Math Total gain scores and Clarity of Speech; $r = .48$, $p < .05$), but this result could easily have been due to chance alone.

Table 5

Significant Rank Correlations between Classroom Average ITED Subtest Gain Scores for Senior High School Students and GEFTA Subscales

GEFTA	ITED Subtest[a]					
Subscale	1	2	3	4	5	6
Interview						
General Appearance	.31*	.49**				
Clarity of Speech				.31*		
Educational Background						.40*
Community Relations		.34*				
Personality Traits				.29*	.65*	
Non-interview						
References		.35*	.35*			

[a] Subtests defined as follows: 1 = Reading Comprehension; 2 = Vocabulary; 3 = Language Arts Usage; 4 = Language Arts Spelling; 5 = Social Studies; 6 = Science.

*$p < .05$

**$p < .01$

The reasons are not apparent for the significant relationships between General Appearance and senior high school student performance on the ITED Reading Comprehension and Vocabulary subtests and between Community Relations and Vocabulary. To offer some at this point would be mere conjecture. The same is true regarding speculations about the significant relationships students' Spelling gain scores had with Clarity of Speech and Personality Traits.

However, the connection between Vocabulary gain scores for elementary school students and Emotional Stability, though not obvious, lends itself to a logical explanation. One of the anchor descriptions in the Emotional Stability subscale is the phrase, "Seems to Manifest Good Judgment." Soundness of judgment depends on the clarity with which those judgments are expressed. Furthermore, the correlation between Emotional Stability and Ability to Communicate for elementary school teachers was the highest among the intercorrelations in the set of eight interview subscales ($r = .58$), and it was quite significant ($p < .001$). One who has command of language, or command of vocabulary, may have a definite advantage in obtaining a higher score on Emotional Stability. The connection, then, between this interview variable and Vocabulary gain scores for elementary students becomes a little clearer.

The correlation that Vocabulary had with Ability to Communicate for the elementary school data requires no explanation while the logic behind the correlation between Math Concepts and Community Relations seems to be well-hidden. Likewise, the significant negative correlations that Reading Total had with Goals and Philosophy and with Experience is not understood.

Table 6

Significant Rank Correlations between Classroom Average ITBS Subtest Gain Scores for Elementary School Students and GEFTA Subscales

GEFTA Subscale	ITBS Subtest Vocabulary	 Reading Total	 Math Concepts	 Math Problem Solving
Interview				
Emotional Stability	.24**			
Community Relations			.25*	
Goals and Philosophy		-.21*		
Ability to Communicate	.26**			
Non-interview				
Application		.19*		
Experience		-.22*		
References				.20*

*p < .05
**p < .01

Relative influence of GEFTA variables on actual selection decisions. Of all the GEFTA and testing variables, three emerged as the most statistically dominant factors in final teacher selection decisions: References, Emotional Stability, and General Appearance. To a lesser extent, Educational Training, total scores on the Wesman PCT, and Experience influenced employment decisions.

These relative contributions that selection variables have to employment consideration were statistically computed using a procedure that yields a prediction formula wherein all selection variables are assigned weights of determination. Table 7 provides a contingency table of correct and incorrect classifications when this formula is used.

Table 7

Classification Contingency Table Based on
Formula to Predict Teacher Employment

	Predicted Group			
	Hired		Not Hired	
Actual Group	n	Row %	n	Row %
Hired	47	78.3	13	21.7
Not Hired	16	27.1	43	72.9

Percent Total Correct Classification: 75.6%

These results suggest that one could accurately predict, about 75% of the time, whether or not a teacher applicant was hired given the applicant's GEFTA and testing scores and the prediction formula. They also suggest that the formula cannot account for almost 25% of the actual employment decisions. No doubt, other additional considerations were made when final selection decisions were made (e.g., position vacancy, certification category, and affirmative action policies).

Interpretation. The overall results of these validity studies tend to indicate a certain level of validity in the selection process used in DISD. Most noteworthy is the fact that the three selection variables (References, Emotional Stability, and General Appearance) that had the greatest influence in teacher selection decisions were among the variables that had significant relationships with on-the-job performance of teachers, in terms of either instructional quality or student achievement.

Personnel Services Test Development and Validity

In the spring of 1979, the Department of Research and Evaluation was directed to develop two forms of a new test that would replace the Wesman Personnel Classification Test (PCT) as one of the 11 criteria for selecting teachers. After a series of consultations with the Personnel Services Department, it was decided that the new test would conform with the following guidelines:

1. The verbal section of the test will measure breadth of academic knowledge, the content domain of which is defined as informational elements in academic subjects covered in senior high school textbooks.
2. The math section of the test will be comprised of items of arithmetic and mathematical operations that are used by teachers on the job.
3. Item format for the verbal section of the test will be single-entry, multiple-choice analogies that require minimal cognitive processing in determining the analogous relationships. The number of options on each item would be four.
4. Duration of test administration is not to be more than 40 minutes for both sections.
5. Content coverage of the verbal subtest will be partitioned equally into the following subject areas:

    English and Literature
    Social Studies (American History, Government, Economics, Geography, Psychology, and Current Events within the last decade)
    Science (Biology, Chemistry, and Physics)
    Miscellaneous (Sports, Music, Art, Theater Arts, Philosophy, Classics, Business, etc.).

The test was to be entitled, simply, the Personnel Services Test (PST). A preliminary version of the PST was used by Personnel Services during the 1979-80 school year. Use of final PST forms were to begin in October 1980.

Test Development. A number of employees at various levels of the DISD participated in generating new test items. Protocols for item generation were formalized and sent to a select group of teachers, facilitators, deans of instruction, principals, evaluators, and upper-level management. The 400+ items generated were screened for accuracy and clarity of construction. After a series of item tryouts, and with due consideration given to the original plans regarding test content, to item correspondence across test forms, and to item correlations with the Wesman PCT-Verbal, two test forms of the PST were drafted. The final forms are made up of 50 verbal analogies and 20 math items.

Criterion-related validity of the PST. Since the two PST forms parallel one another very well—that is, each is a statistically sufficient substitute for the other—the data on both were combined in order to compute validity estimates. Table 8 presents correlations that indicate the substantial criterion-related (concurrent) validity of the PST in terms of Wesman PCT scores.

Table 8

Pearson Correlations Between PST and
Wesman PCT Scores

PST Score	Wesman PCT Score Verbal	Wesman PCT Score Math	Wesman PCT Score Total
Verbal	.80	.51	.78
Math	.64	.71	.73
Total	.84	.70	.87

The criterion-related validity of the PST-Verbal total score is moderately high in terms of the Wesman PCT-Verbal score (r = .80). In fact, the validity estimates of PST-Verbal scores with Wesman PCT-Verbal, -Math, and -Total scores are almost identical with those obtained in the concurrent validity study of Wesman PCT scores and Common Scores on the

National Teacher Examinations (NTE). The highest correlation to appear substantiates a rather high concurrent validity between Wesman PCT- and PST-Total scores (r = .87). Also, the validity estimate for Wesman PCT- and PST-Math subtests is at a moderate level (r = .71). One of the reasons for this lower estimate is due to the relatively short length of the math subtests.

Content validity of the PST. Every item selected for the final draft forms contains content found specifically in DISD textbooks or in materials printed under the auspices of DISD. Item generators were constrained to this requirement. The fact that teachers participated appreciably in generating items suggests that the items are probably representative of content actually covered in the classroom. Since item selection was based partly on item statistics, however, the content representativeness of the final items may have been somewhat reduced. Item statistics were not used in the development of the math items. Content areas and the number of items for the verbal subtest are provided below.

	No. of Items	
Subject	Form A	Form B
ENGLISH	19	19
Vocabulary	11	11
Literature	5	5
Mechanics	3	3
SCIENCE	14	14
Biology	6	5
Chemistry	2	3
Physics	5	5
Statistics	1	1

	No. of Items	
Subject	Form A	Form B
SOCIAL SCIENCE	13	13
Psychology	3	3
Government	3	3
Current Events	1	1
Geography	1	1
Economics	4	4
MISCELLANEOUS	3	3
Mythology	2	0
Sports	1	2
Art	0	1

These subject areas seem to represent the content covered in the DISD senior high school curriculum, at least in the traditional academic subjects.

There are three main reasons, theoretically, why the content validity of the PST-Verbal section may be questionable. First, the domain specifications for each subject area were not that specific, and much leeway was given item generators to determine which specific informational elements represented actual content coverage in DISD textbooks and materials. Second, the initial phase of item selection based on the clarity of item construction may have eliminated items the content of which were more representative. Finally, elimination of representative items was even more probable in the second and third phases of item selection, which was based on certain guidelines regarding item statistics.

Regardless of these apparent shortcomings in test development, the PST-Verbal section still seems to have an acceptable level of content validity in a practical sense. It should be noted that the priority of criterion-related validity over any other type of validity tended to preclude the possibility of developing a highly content-valid test in this particular case.

The content domain for the math items was broadly defined as those arithmetic and mathematical operations that teachers perform fairly regularly on the job. Teachers must often add scores, subtract points, add and subtract fractional points, compute classroom averages, and interpret statistics about performance levels of students. These tasks are represented by the math items in the PST. Unlike the verbal items, each of the math items was generated and selected according to the content domain definition. In terms of the skills this section is purported to measure, there seems to be little doubt that the PST-Math subtest is content valid.

Construct validity of the PST. The construct validity of the PST-Verbal subtest was investigated using two approaches. In the first approach, PST-Verbal scores were correlated with two ratings from the Personnel Services Graded Evaluation form for teacher applicants--Educational Background and Educational Training. These ratings are based, for the most part, on records of the formal education of the applicant. The PST-Verbal subtest and the education ratings, then, do seem to have some construct comparability. In the second approach, the test items were factor analyzed in order to determine if their underlying structure coincided with subject matter classification.

The correlation between the PST-Verbal subtest and the combined ratings was low-moderate (r = .32) but quite significant. This result is preliminary evidence that suggests that the verbal subtest validly measures the construct "breadth of academic knowledge."

The construct validity of the PST-Verbal subtest, based on a factor analysis of the items, is not so easily recognizable. None of the factors were distinct according to definite subject matter.

Interpretation of validity of PST. The PST-Verbal subtest has very good criterion-related validity in terms of the Wesman PCT-Verbal scores. It also has a reasonable level of content validity in that there are logical connections between test items and the specified domain those items represent. Its construct validity is not yet established solidly as the evidence is inconclusive. It should be pointed out, however, that construct validity usually requires a series of investigations in order to become definite. Preliminary evidence, however, still suggests some construct validity of the PST-Verbal subtest.

The PST-Math subtest has good criterion-related validity in terms of the Wesman PCT-Math scores. Its content validity appears to be quite definite in that test items were constructed and retained in accordance with the domain and item descriptions. The construct validity of the PST-Math subtest could not be investigated at this point.

The evidence also indicates that the two forms are sufficiently parallel to be used interchangeably by Personnel Services in screening teacher applicants. Although the content is somewhat different between Forms A and B, the emphasis of the equality of criterion-related validity tends to override that fact and to diminish its importance.

Personnel Services Department Essay Test Development and Validity

The Personnel Services Department began administering an essay test to teacher applicants in the fall of 1977. The test was revised substantially during the 1979-80 school year in order to improve its simplicity, objectivity, validity, and reliability. Since criterion-related and construct validation were infeasible, content validity was chosen to meet the requirements established by the Equal Employment Opportunity Commission (EEOC). Content validation of the new essay test required a complete job review and job analysis of observable writing behaviors performed by classroom teachers.

Job analysis. Thirty-three principals and deans of instruction were interviewed and questioned about the writing tasks of teachers. Compilation of the data resulted in a list of writing tasks which were reviewed by a committee of former teachers. These teachers revised the list of writing tasks and evaluated the importance of each task by assigning ratings for the level of writing difficulty and the consequence of writing errors. Table 9 shows the results of their work.

Table 9

Analysis of Writing Duties/Tasks of DISD Classroom Teachers

Major Writing Duties/Tasks of the Job	Importance of Duties/Tasks			
	Average Frequency[a]	Average Time Per Occasion[a]	Level of Writing Difficulty[b]	Consequence of Writing Error[b]
Instructional				
Writes tests to measure student progress	1 per day—1 per quarter	1—2 hrs.	8	8
Writes comments on students' assigned work and/or tests	30--150 per week	5-20 mins.	6	8
Writes instruction for students on chalkboard, bulletin board, overhead projector and/or mimeograph paper	3—5 per day	5—25 mins.	6	8
Writes assignments for students on chalkboard, bulletin board, overhead projector, and/or mimeograph paper	5 per day	5 mins.	3	8
Non-instructional				
Prepares notes to parents regarding school activities and/or school supplies	1 per month	10 mins.	2	7
Prepares notes to parents regarding student progress	1 per month	20 mins.	4	7

[a] Expressed as a range in values due to difference of tasks for teachers at various grade levels and subject areas.

[b] 1 = Low, 8 = High.

Table 9 (cont'd)

Major Writing Duties/Tasks of the Job	Importance of Duties/Tasks			
	Average Frequency[a]	Average Time Per Occasion[a]	Level of Writing Difficulty[b]	Consequence of Writing Error[b]
Prepares student referral reports for disciplinary or academic reasons for principals, parents, and/or administrators	1 per month	20 mins.	3	7
Prepares daily lesson plans for self, principals, supervisors, and/or substitute teachers	5 per week	1 hour	4	4
Prepares notes to supervisors, office personnel, and/or other teachers to exchange school-related information	1 per week	10 mins.	2	5
Writes student demographic information for various District departments	1 per quarter	30 mins.	1	3
Keeps records of student attendance for parents and/or supervisors	1--5 per day	5 mins.	1	1

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[a] Expressed as a range in values due to difference of tasks for teachers at various grade levels and subject areas.

[b] 1 = Low, 8 = High.

Thirty of the 33 principals and deans indicated that the writing characteristics they felt were most needed by teachers for adequate execution of writing tasks were clarity, coherence, and organization. Thirty-two (32) of them felt that the most important mechanical skills were legibility of handwriting, correct spelling, and correct use of grammar, capitalization, and punctuation.

Content validity of the essay test. Based on the information obtained from the job analysis described above, an essay test designed to measure the writing characteristics and skills required for adequate writing performance of teachers was developed.

The test instructions included time allowance and scoring criteria as follows:

"1. Time Allowance...20 minutes"

"2. Your response to this essay question will be scored ONLY for written English, including clarity, organization, coherence, mechanics of writing, and legibility of handwriting."

"Please select ONE of the following topics. In a well-organized and unified essay of at least 100 words (approximately 15-20 handwritten lines), clearly discuss your selected topic. Select, connect, and organize the information so that it is coherent."

A list of six topics, each containing content directly related to the teaching profession, followed these instructions.

Scoring of the essays was the most important aspect of test administration regarding content validity. Raters were carefully trained and provided with a scoring guide precisely defining the characteristics and skills identified as essential to the writing performance of teachers.

It is recommended that each essay receive analytical scores in three areas: (a) legibility of handwriting, (b) mechanical skills--a per-page total of punctuation, grammar, capitalization and spelling errors, and (c) content—a composite rating of clarity, coherence, and organization.

Interpretation. Of the 11 criteria used to select teacher applicants for employment, 6 have been studied. Results indicate an acceptable level of validity that these measures have with regard to job performance. In addition, two of these criteria, the objective and essay tests, have undergone substantial improvements in terms of their relevancy to tasks that teachers must perform on the job. It should be noted that although much controversy arose in the initial implementation of the tests-for-selection program, the findings from the 1979-80 validity studies show that other criteria (References and Interview subscales) played a much more dominant role in the final decisions for teacher employment.

Conclusion

Much progress has been made in validating and improving the teacher selection program. The most important selection criteria were shown to have acceptable levels of validity in terms of instructional quality and student achievement while considerable improvements in the teacher applicant testing program were also made.

Development and improvement of the teacher evaluation component, however, lost momentum due to financial strictures. Original plans were to expand the teacher evaluation pilot program (TEPP); however, it was considered to be too costly. The benefits of the program far exceeded the drawbacks as indicated by a sample of participating teachers. But these benefits perhaps were insufficient to warrant even program continuation, let alone program expansion. Should TEPP ever be revived, its benefits might be more substantial if TEPP personnel were better trained, if the program were monitored, and if written goals were in terms of student achievement in the class.

1979-80 Teacher Selection and Evaluation Reports

Berry, R. Teacher Interviewing Policies: A Review of Large School District Policies and Related Literature (SP80-403-71-05), October 1980.

Carter, W. Validation of the Teacher Selection Process (SP80-400-31-05), October 1980.

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Taite, G. The Development of the Personnel Services Department Essay Test (SP80-404-31-05), October 1980.

Taite, G., & Daniel, G. Evaluation of the Teacher Evaluation Pilot Program (TEPP), 1979-80 (SP80-405-31-05), October 1980.

An Interpretive Analysis of the Texas Education Agency's Accreditation Process, 1979-80

Deberie Gomez Adkins

Each legally constituted public school district in Texas must be accredited by the Texas Education Agency (TEA) in order to receive support from the Foundation School Fund. Accreditation encompasses the district as a whole and is based on evidencing satisfactory overall compliance with the ten Principles and Standards which are set forth in the TEA document, Principles, Standards, and Procedures for Accreditation of School Districts.

Accreditation cycles are five school years in duration. Accreditation is maintained through two kinds of continuous performance throughout each five-year cycle: (a) maintaining satisfactory status with respect to the Principles and Standards, and (b) improvement as measured by success in producing targeted advancements in student learning achievement as compared to the status at the beginning of the district's cycle. The targeted advancements in student learning achievement are selected by the district upon completion of a comprehensive district-wide needs assessment. Failure of a district to discharge its obligations during the five-year cycle can result in modification or revocation of the district's accreditation.

Evaluation of student achievement and the district's procedural performance is carried out by the district and/or by TEA using as a reference the Principles, Standards, and Procedures for Accreditation of School Districts. The evaluation process consists of: (a) securing information, both objective and subjective, which measures performance and results, (b) comparing these measurements with the Principles and Standards, and (c) judging the degree of adequacy reflected by this comparison. The district is charged with the principal responsibility for the evaluation. Using the evaluative information and the evaluative judgments made by the district, TEA arrives at its final decision with respect to the district's accreditation status.

The information contained in this interpretive analysis highlights the evaluative information and the results of the internal monitoring process which will be submitted to the Texas Education Agency Division of School Accreditation (Adkins, Sawey, and Kominski, AA80-100-31-05 and AA80-101-31-05).

Principle 4: The Five-Year Priorities Plan for Texas Education Agency (TEA) Accreditation

The Dallas Independent School District (DISD) entered the accreditation cycle through the Pilot Accreditation Process, 1975-76, which had been initiated by the Texas Education Agency. The basic purpose of this approach to accreditation was to assure true quality in student learning and in performance of school districts by encouraging school districts to identify intended student learning achievement goals and to implement educational improvement processes which would produce a measurable degree of goal attainment. This process was intended to serve as the primary criterion for accreditation of the District.

In order to implement the Pilot Accreditation Process, the DISD was instructed to complete the following four phases of activity:

Phase I - Adopt a set of goals and goal indicators based on TEA goals and the Goals for Public School Education.

Phase II - Complete a self-study (needs assessment) based on the adopted goals.

Phase III - Use the needs assessment information as the basis for prioritizing the goals and developing a five-year plan to improve education in DISD schools.

Phase IV - Implement the five-year plan and show evidence of the effects (to continue from 1978 through 1983).

The first three phases were completed by February 22, 1978 (for more information see Grobe, IE78-071-62-09 and IE78-071-61-09). In the interim period of time, the Pilot Accreditation Process had become State Board of Education Policy (August 1977) and thus became a mandatory process for all Texas school districts.

The Five-Year Priorities Plan for TEA Accreditation, which was adopted by the DISD Board of Education in Phase III, originally focused on eight high priority areas which needed improvement across the District. Following completion of the first year (1978-79) of implementation, it became apparent that the eight priority areas could be logically reduced to four goal areas which would allow greater focus and emphasis while still addressing the originally intended goals. The four priority goals are as follows:

Goal 1. Functional Literacy - Students should be able to master certain essential basic skills and knowledge and attain a level of minimal competency. This goal was stated somewhat globally so that it includes a number of related school improvement goals concerning mathematics (i.e., Basic Skills), reading (i.e., Basic Skills), science/health (i.e., Personal Environment and Personal Safety Practices), and citizenship (i.e., Consumerism and Citizenship).

Students should be able to recognize and help minimize (a) environmental problems which threaten health, livelihood or emotional well-being, and (b) physical and mental health problems and the factors contributing to them.

Students should know about (a) their rights and duties as a citizen, (b) politics in this country, and (c) how our government compares to other governments.

Goal 2. Mathematics - Students should have knowledge of the basic skills (such as reading, writing, and arithmetic) in the early elementary grades along with more advanced courses in the upper grades.

Goal 3. Reading - Students should have knowledge of the basic skills (such as reading, writing, and arithmetic) in the early elementary grades along with more advanced courses in the upper grades.

Goal 4. Basic Language Arts - Students should have knowledge of the basic skills (such as reading, writing, and arithmetic) in the early elementary grades along with more advanced courses in the upper grades.

Each of these four goals has accompanying goal indicators explicitly describing the student outcomes which demonstrate improvement in the goal area. Each school in the DISD is required to prepare an annual School Improvement Plan which describes its efforts to improve student learning overall and which identifies the procedures and strategies undertaken to improve student achievement in the four priority goal areas. A major intent of this process is to have schools continually examine and improve the instructional techniques and procedures it is using. In other words, the intent is to promote educational/instructional renewal.

At the Administrators' Work Conference in August 1979, building administrators were given Guidelines for Developing Annual School Improvement Plans in Support of TEA Accreditation. The manual contained the District's goals, goal indicators, and the second-year objectives for each goal by grade level. Instructions and suggestions were provided for the plan development process. In addition, the manual contained data sheets for recording school-level achievement results to be used as a limited needs assessment in the planning process. All data included in that section were to be extracted directly from a Special Report on Pupil Achievement (Meier, Whitmore, and Olson, IR79-000-31-30) which was produced for each school.

Technical assistance was provided by the Department of Research and Evaluation and by the area administrators for each subdistrict and for the secondary schools. With the exception of the schools in the East Oak

Cliff Subdistrict, each school was required to submit a plan to the area administrator by October 1, 1979. In order to accommodate the East Oak Cliff Governance System, plans were not required of those schools until the first week in December. All plans were reviewed for acceptability. In the spring 1980, site visits were conducted in a sample of schools to determine the extent to which plans had been implemented.

Evaluation Results

1. According to fall 1979 survey results, the five most troublesome factors encountered by school personnel in developing a school improvement plan were: (a) inadequate time for developing the plan, (b) inadequate planning skills, (c) inadequate skills for interpreting data, (d) inadequate understanding of the plan, and (e) inadequate organization. Seventeen additional problems were cited with frequencies of six or less.

2. Spring 1980 survey results revealed that 98% of 93 respondents had begun to implement their plans by October 1979. The majority (81%) of these respondents felt that the feedback which they had received from the Department of Research and Evaluation regarding their plans had been either useful or somewhat useful. Eighteen percent (18%) said that the feedback helped them understand the weak areas of the plan or that it was simply encouraging to know that their plans were acceptable. Seventeen percent (17%) of the 93 respondents felt that the feedback was not useful and explained that either the reviewer did not understand the plan or that the feedback was not specific enough. Most of the respondents (87%) indicated that between 76% and 100% of their faculties were involved in the planning process. Eighty-five (85) survey respondents listed positive effects of the school improvement process. The three most frequently cited effects were: (a) faculty is more involved and plans together, (b) the direction for the school is more specific, and (c) students' progress has increased. Thirty-one percent (31%) of the 92 respondents cited negative effects of the process. Since effects which are perceived as negative should be systematically eliminated, all of these are presented in Table 1.

Table 1

Negative Effects of the School Improvement
Planning Process

Frequency	Rank Order	Effects
23	1	Some teachers resented the time spent on extra paper work and reporting.
2	2	Excessive time was spent testing students.
2	2	Scores were not representative of performance.
1	4	Meetings were too frequent.
1	4	There was a fine line between teaching the needed functional literacy skills and "teaching the test".
1	4	Some teachers feel threatened by repercussions if they do not achieve goals. [sic]
1	4	Community and parents are not supportive.
1	4	Lack of familiarity with the areas of evaluation is a concern.

3. There was documentation showing that 58 schools (31%) received direct one-to-one assistance from personnel in the Accountability and Accreditation branch of the Department of Research and Evaluation on a request basis. This figure probably underrepresents the actual assistance given because forms were not always completed as assistance was given.

4. Plan review for middle schools and high schools was accomplished by a team which included individuals from Secondary Learning and from the Department of Research and Evaluation. The same process was attempted for elementary plans and for all of the East Oak Cliff school plans, but the individuals involved had other priority tasks to perform. As a result, an evaluator from the Department of Research and Evaluation completed the process.

5. Although all schools eventually had an acceptable plan on file, Table 2 presents the status of the school plans after an initial review.

Table 2

Status of School Improvement Plans
After Initial Review Process

Type of School	Acceptable		Unacceptable		Missing	
	N	%	N	%	N	%
High Schools	23	85	4	15	0	0
Middle Schools	10	43	12	52	1	4
Elementary Schools	102	76	31	23	2	1
Total	135	73	47	25	3	2

The majority of unacceptable plans (a) failed to state appropriate annual improvement objectives, (b) failed to delineate means of documenting the implementation of strategies, (c) failed to include an appropriate time frame, or (d) a combination of these factors. Some of these difficulties were the result of misunderstanding the guidelines and failure to receive one-to-one assistance.

Schools whose plans were unacceptable were given assistance and a period of time to revise and resubmit the plan. Due to the limited District-level staff involved in implementing the accreditation process, plans were not completely placed into an acceptable category until March 1980. Again, all schools eventually had an acceptable plan on file.

5. Of the 50 schools and two ninth-grade centers monitored in the Spring 1980, 46 (88%) had clear and abundant evidence that the plan was being implemented. Forty (77%) had indications of faculty involvement. Also, 30 (58%) of these schools evidenced a system of internal monitoring.

6. Table 3 shows the District's status toward objective attainment in Functional Literacy.

   Improvement was evidenced at every grade level measured; however, the 10% increase (the second-year objective) was exceeded only at grade levels three and six.

   Table 4 shows the percentage gain in students correctly answering 70% or more of the total number of BOAT objectives by subdistrict.

Table 3

Percentage of Students Correctly Answering 70% or More of the Total BOAT

Grade Level	1978-79	1979-80	Difference
3	66%	81%	+15%[b]
6	53%	83%	+30%[b]
8	39%	43%	+4%
9	51%	56%	+5%
10	64%	71%	+7%
11	73%	82%	+9%
8 - 12[a]	59%	68%	+9%

[a] The 1979-80 figure includes all students who have ever taken the BOAT.
[b] Met or exceeded the 10% objective.

Table 4

Percentage Gain in Students Correctly Answering 70% or More of the Total BOAT by Subdistrict

Grade Level	Northwest	Northeast	Southwest	Southeast	EOC
3	+12[a]	+16[a]	+17[a]	+14[a]	+16[a]
6	+26[a]	+27[a]	+29[a]	+27[a]	+37[a]
8	+ 1	+ 3	+ 4	+ 3	+ 7
9	+ 5	+ 4	+ 3	+ 2	+ 7
10	+ 5	+ 6	+11[a]	+ 7	+ 7
11	+ 6	+ 7	+11[a]	+10[a]	+10[a]

[a] Met or exceeded the 10% objective.

The largest increase (+37) occurred in the sixth grade of the East Oak Cliff Subdistrict. In the Southwest Subdistrict, the District's annual objective was attained at four of the six grade levels (3, 6, 10, 11). Both the Southeast and East Oak Cliff Subdistricts attained the District's annual objectives at three of the six grade levels (3, 10, 11).

Four high schools (Adamson, Thomas Jefferson, North Dallas, and Roosevelt) met or exceeded their own school-level BOAT objectives at all grade levels (9-11). The percentage of high schools which met or exceeded their own BOAT objectives in each of grades 9, 10, and 11 were 28%, 60%, and 52%, respectively. Twenty-seven percent (27%) of the middle schools met or exceeded their own school-level grade eight BOAT objectives. At the elementary level, 60% of the schools met or exceeded their grade three BOAT objective while 77% met or exceeded their sixth-grade BOAT objective.

At grade levels 9-11, there were only six instances where zero increase or a decrease occurred. For grade eight, there were nine (36%) instances of zero increase or a decrease, and at grades three and six combined there were just 18 (9%) instances of zero increase or a decrease.

7. Because the District changed norm-referenced tests for grade levels 1-11 during 1979-80, comparisons of the results of spring 1979 and spring 1980 cannot be interpreted to suggest progress or objective attainment. To do so would be unsound measurement practice since the results are based on very different norm groups.

8. It was recommended that the Texas Assessment of Basic Skills (TABS) be incorporated into the Five-Year Priorities Plan as a measure of student achievement in the goal area of Functional Literacy for grades three, five, and nine. It is also recommended that the BOAT measure for grades three and six be eliminated in favor of the TABS.

Interpretation

Overall, the TEA accreditation school improvement planning process was significantly improved over the first year (1978-79) of implementation. Schools whose plans were initially unacceptable were given an opportunity to revise and resubmit their plan, and were offered technical assistance if needed. As a result, all schools eventually had an acceptable plan on file.

The process evaluation results which were based on fall and spring survey data clearly emphasized the continuing need for greater central administrative support in the school improvement planning process. While the TEA accreditation process appears to be a sound concept which is reportedly having positive effects, the District's organizational structure has not been appropriate to support the effort. The data suggest that one-to-one assistance is still the best avenue toward the development of appropriate school improvement plans. Consistent with the 1978-79 school year, school personnel experienced difficulties in interpreting and using the guidelines manual when no other assistance was available. Time continued to be the number one problem cited by the school personnel. While it is recommended the schools do as much planning as possible in the spring, it is recognized that the test results required to develop and refine a school improvement plan are not available before August, thereby limiting development time. The Department of Research and Evaluation continues to seek means of hastening the process to alleviate the time problem as much as possible.

The spring 1980 survey results were based on a sample of schools whose plans were accepted after the first review with no further work being necessary. Thus, the sample was biased in favor of schools who had fewest problems with the school improvement process. For this reason, it is not surprising that these schools were able to implement their plans almost from the beginning of the school year. While the majority of these schools appreciated the feedback from the Department of Research and Evaluation, one might suspect that these schools probably received more favorable or "pleasing" feedback than did schools whose plans were unacceptable according to the initial review. It is of concern that 17% of the respondents felt that the feedback was not useful. As a result of this information, further refinement and development of the review process has been undertaken. While the majority of the schools suggested that most of their faculty had been involved in the process, this self-report information will require further confirmation through on-site monitoring visits.

Again, although the spring 1980 survey results were based on a sample of schools which did not have great difficulty with the process or which received sufficient assistance, it remains encouraging that 85 respondents perceived positive effects from the process. It is part of the intent of the TEA school improvement process to promote increased faculty involvement in instructional renewal, to focus a school's efforts in limited priority areas, and to increase student achievement. Significantly, these were the most frequently reported positive effects. That a reported negative effect was teacher resentment of extra time and paper work suggests that the process is still not clearly understood. If the school improvement process were actually folded into the normal planning processes of the school, such additional time and paper work should not be necessary. Again, assistance must be given to alleviate this problem. The remaining negative effects generally reflect misunderstanding, misconception, or lack of information which further emphasizes a need for availability of technical assistance in carrying out the school improvement process. Unfortunately, the three-person staff from the Department of Research and Evaluation could provide technical assistance to only 31% of the schools in the District.

The plan review process was less than ideal. While the secondary school plans benefited from a multiple review, most of the elementary plans and all of the East Oak Cliff plans were reviewed by only one individual. The District is currently reorganizing administratively in a way which should allow improvement to be made in this process.

In general, the school improvement plans which were submitted in 1979-80 were greatly improved over the plans submitted in 1978-79. Every school eventually had an approved plan on file. In the initial review process, 135 school plans were accepted, while only 47 required further development. Much of the success was due to improved guidelines and to a year's experience with the process. Much of the difficulty, however, could also be attributed to problems with interpretation of the guidelines and lack of other resources for aid. The plans ranged from very poor to excellent. Only 8% were judged to be outstanding, and these seemed to capture the full spirit and intent of the school improvement process. It became apparent that a change of principals in a school could lead to difficulty where difficulty had not been evidenced in the previous year.

Site visits in 1979-80 also proved more encouraging than did those conducted in 1978-79. Most of the schools visited evidenced implementation of their plans. In 1978-79, only 22 of 50 schools monitored showed visible evidence that the plan was being implemented while 46 of 50 documented implementation in 1979-80. Faculty involvement was also much more apparent than before. Finally, there was an increase in the number of schools which were apparently monitoring their own plan implementation.

The emphasis placed on increasing student achievement in Functional Literacy as measured by the Basic Objectives Assessment Test (BOAT) clearly had an impact. Increases were evidenced at every grade level District-wide and by subdistrict. While the 10% increase stated in the District's second annual objective was exceeded only at grades three and six, the actual increase at those grade levels was dramatic. Since it is more difficult to impact learning at the upper grade levels, the increases which resulted were very noteworthy. It is also significant that the subdistricts with the lowest starting points (East Oak Cliff, Southeast, and Southwest) made the largest gains. This is the kind of trend which could lead to District-wide improvement which is educationally important.

In contributing to the District's objective in Functional Literacy, most of the high schools met or exceeded the local school objectives which they had set based on the BOAT. Four high schools met or exceeded their objectives at all three grade levels (9-11). These objectives were not necessarily 10% increases but were realistic expectations for those schools. A similar pattern of success occurred for the elementary schools. While the greatest percentage of no increase or decreases occurred in the middle schools, this is not at all surprising in light of the fact that there are objectives on the BOAT which are based on information that has not been formally presented to eighth-grade students. It is, therefore, difficult to project how well a new set of eighth-grade students will perform since instruction is not necessarily designed to bridge this gap. One would expect to see the percentage of students who pass the BOAT (correctly answer 70% or more of the total number of items) increase as grade level increases from eight to twelve and the data indicate that that is exactly what does happen.

Unfortunately, the District cannot measure increases in student achievement in the Mathematics, Reading, and Language Arts goal areas. After careful deliberation, the District's decision makers decided that it was time to change from an outdated version of the Iowa Tests of Basic Skills (ITBS) to the new 1978 version. Similarly, it was decided that the Iowa Tests of Educational Development (ITED) was outdated and inappropriate for students in the DISD and, thus, it was time to change to the Tests of Achievement and Proficiency (TAP). While the Department of Research and Evaluation attempted to equate these tests so that comparisons could be made, the change from the outdated norm group associated with the old tests made such comparisons uninterpretable. To attempt to interpret the changes in percentages of students scoring at or above the fiftieth percentile would violate sound measurement practice. In addition, the ITED and TAP were so dissimilar that the equated results were not valid. As a result, the District will report these data as base data for the last three years of the accreditation cycle. That is, comparisons for student progress will be made between 1979-80 and 1980-81, 1980-81 and 1981-82, and 1981-82 and 1982-83.

The change to new tests with current norms revealed that the DISD is not much different than other large-city school districts in terms of student achievement. That is to say, the percentage of students scoring at or above the fiftieth percentile is very near 50%. Since it should be the ultimate goal not to look like other large cities but to strive to have all Dallas students perform comparable to a national population of students, the decision has been made to use national norms for setting the objectives for school improvement beginning in the 1980-81 school year. Moreover, this move will allow the DISD to be consistent with most other large cities in Texas in the use of the national norming population.

In the spring 1980, the fifth- and ninth-grade students in the DISD were required to take the Texas Assessment of Basic Skills (TABS) Test. In 1981, the third-grade students will also take this test. Students in the DISD did not perform well on the TABS when compared with the performance of students in other large Texas cities. For this reason, it has been recommended that objectives, based on the TABS as a measure, be incorporated into the Functional Literacy goal. For a specific description of these objectives, see Evaluation of the 1979-80 Phase of the Five-Year School Improvement Plan in Response to the Texas Education Agency's Principles and Standards for the Accreditation of School Districts (Adkins, Sawey, and Kominski, AA80-100-31-05). The third-grade and sixth-grade BOAT will be eliminated as a District-wide measure and the objectives based on that test will be eliminated.

In the Five-Year Priorities Plan itself, the following changes are recommended based on the achievement trends from 1978-79 and 1979-80:

Functional Literacy Goal (8-12)

- By the end of the 1982-83 school year, the cumulative percentages of students who correctly answer 70% or more of the total BOAT items (pass the BOAT) will be:

Grade 8	60%
Grade 9	80%
Grade 10	90%
Grade 11	95%
Grade 12	98%
Grades 8-12	85%

- By the end of the 1982-83 school year, the percentages of the DISD Grade 3 students, Grade 5 students, and Grade 9 students who master each Mathematics, Reading, and Writing objective on the Texas Assessment of Basic Skills (TABS) will be 85%.

Mathematics, Reading, and Language Arts Goal

- By the end of the 1982-83 school year, the percentage of students in each grade (K-11) who score at or above the 50th percentile for national norms on the Mathematics, Reading, and Basic Language Arts subtests of the appropriate norm-referenced test will increase by six percent (6%).

This objective is based on national norms and represents an increase of two percent (2%) per year.

While no other substantive changes are recommended for the Five-Year Priorities Plan, it is recommended that the supporting structures within the plan be examined for update during the 1980-81 school year. Many of the support activities currently in the plan have been completed while some have been changed in favor of improvements in the instructional support system. Finally, the District has completely changed the assessment, grading, and reporting system and has developed long-range plans for implementation of the system which should be incorporated into the District's Five-Year Priorities Plan.

Internal Accountability System for Monitoring All of the TEA Principles and Standards

The Texas Education Agency has set forth ten Principles and Standards for the accreditation of school districts. The preceding section of this interpretive analysis discussed the monitoring of compliance with only one of these Principles (Principle 4). The District must be sure that it also adheres to the other nine Principles during an accreditation cycle.

The Principles are general characteristics of an effective educational program as defined by TEA. The Standards are observable conditions in, or arrangements made by a school district in the process of complying with the Principles. For accreditation purposes, the Standards are the regulations which constitute the criteria for assessing whether the district's performance is satisfactory.

The ten Principles are:

Principle 1. Governance - Conditions existing and developing within the community served by the district are conducive to maintaining a quality educational program.

Principle 2. Governance - The district is in continuous compliance with constitutional and statutory laws.

Principle 3. Governance - Internal arrangements for governance and leadership in the district organization are conducive to desirable morale, systematic accountability, educational improvement, and fiscal responsibility.

Principle 4. Accountability and Educational Improvement - Through vigorous application of an accountability and educational improvement system, the district gives primary emphasis to success in its effort directly focused upon producing student learning.

Principle 5. Curriculum and Instruction - Curriculum content adequate to achieve the student development goals of the district is made available to students through effective programs. The curriculum reflects state and local goals, and the curriculum offerings are evaluated periodically and revised as appropriate.

Principle 6. Curriculum and Instruction - The elements of curriculum covered in Principle 5 are expressed in writing and include content and arrangements consistent with state and local requirements.

Principle 7. Curriculum and Instruction - Constructive, skillful, and personalized teaching is evident in implementing the instructional programs of the district.

Principle 8. Curriculum and Instruction - Instructional and related programs appropriate to special needs of students are provided.

Principle 9. Administrative and Technical Support - Management, administration, and technical resources are used to advance learning by students and to discharge accountability and educational improvement.

Principle 10. Physical Plant and Equipment - The district provides physical plant and equipment which are adequate to support a program that meets the educational needs of its students, are positive in effect upon teaching and learning, reflects citizens' esteem for their schools, and are designed and operated for maximum utilization.

Monitoring Results

Self-report information was gathered to respond to each indicator related to the Principles and Standards. Additional supporting documents were also gathered as necessary. For detailed responses to each indicator, see A Report of the Operations Relative to the Texas Education Agency's Principles and Standards for the Accreditation of School Districts (Adkins, Sawey, and Kominski, AA80-101-31-05).

Interpretation

It is apparent that the DISD is operationally consistent with the ten Principles and Standards for accreditation of schools. While the response to some indicators seems to relate only indirectly to that indicator, districts are allowed by TEA to illustrate processes which they use that may be better than the process described in the indicator. Such allowance is necessary when one considers the vast differences among the various school districts in Texas which must address the same set of indicators.

Southern Association Accreditation

The DISD has opted to maintain accredited status with the Southern Association of Secondary Schools. This accreditation assures that the District's graduates will be recognized by institutions of higher education throughout the United States. Each school year, a specified set of high schools undergoes the major evaluative processes necessary to maintain the accredited status. During the 1979-80 school year, the Business and Management Center, the High School for Health Professions, the Arts Magnet High School, the Transportation Institute, Thomas Jefferson High School and North Dallas High School successfully completed the self-assessment and planning processes required by the *Evaluative Criteria, 5th Edition* which was developed by the National Study of School Evaluation and is used by the Southern Association. Assistance was provided to these schools on a request basis. Data were extracted from the student data base, appropriate survey samples were determined, and data analysis was done for surveys and questionnaires required in the process.

Summary and Recommendations

The second year of implementation of the *Five-Year Priorities Plan for TEA Accreditation* showed vast improvement in all areas over the first year. All of the schools were able to submit an acceptable plan. The majority of the schools had acceptable plans with no revision required. The range in quality remained, however, poor to excellent. The second year was characterized by: (a) continued lack of adequate support for the schools from central administration, (b) difficulty in finding time to develop the plan, and (c) difficulty interpreting the guidelines without intervention from an outside resource. The District has reorganized the administrative structure in a way which should facilitate the implementation process.

Spring site visits revealed vast improvement in implementation of written plans. Documentation was visible in a majority of the schools reviewed. Faculty knowledge and involvement had increased significantly. Finally, several schools maintained internal monitoring processes.

The District exceeded its Functional Literacy objectives at the third and sixth grades. While the objectives were not met in grade levels eight through eleven, significant progress was made. Progress in the other three goal areas (Mathematics, Reading, and Basic Language Arts) could not be measured due to changes in the norm-referenced tests used. Thus, 1979-80 will become the base year for improvement during the last three years of the five-year cycle. Objectives will be based on national norms in order to encourage excellence and to be consistent with other school districts in Texas.

Responses to the Principles and Standards for TEA accreditation were aggregated to provide a description of the overall District operational procedures. It was apparent that the District's procedures are generally consistent with the expectations of the Texas Education Agency.

The following recommendations should be considered for improving the school improvement process:

1. Provide additional central administrative support for plan development, review, implementation, and monitoring. A multiple review process should be used to accept or reject plans.

2. Revise the Functional Literacy Goal to incorporate the Texas Assessment of Basic Skills (TABS) as a measure. Revise the five-year objectives in Mathematics, Reading, and Basic Language Arts to reflect the change from large-city norms to national norms. Revise the five-year Functional Literacy objectives for grades eight through twelve which use the BOAT as a measure.

3. Systematically monitor all schools with regard to implementation of the plan. Such monitoring should be a continuous process of central staff which includes, but is not limited to, the Department of Research and Evaluation.

4. Examine and revise the support system portions of the Five-Year Priorities Plan as an update.

5. Continue to emphasize the school improvement process as a priority of the District as well as a mandate of the state.

Additional Information:

Adkins, D. G., Sawey, K. T., and Kominski, E. S. Evaluation of the 1979-80 Phase of the Five-Year School Improvement Plan in Response to the Texas Education Agency's Principles and Standards for the Accreditation of School Districts (AA80-100-31-05), September 1980.

Adkins, D. G., Sawey, K. T., and Kominski, E. S. A Report of the Operations Relative to the Texas Education Agency's Principles and Standards for the Accreditation of School Districts (AA80-101-31-05), September 1980

Adkins, D. G., and Alexander, D. L. Internal Accountability System for Monitoring the Texas Education Agency Accreditation Process (AA79-105-31-05), July 1979.

Adkins, D. G., and Alexander, D. L. Internal Accountability System for Monitoring Texas Education Agency's Principles and Standards for Accreditation (AA79-106-31-05), July 1979.

Alexander, D. L., and Lamb, W. K. Evaluation of the 1978-79 Phase of the Texas Education Agency's Accreditation Process (AA79-104-31-05), July 1979.

Grobe, R. P. Pilot Accreditation Project: A Final Report Documenting Methodologies and Major Results (IE78-071-61-9), March 1978

Grobe, R. P. Pilot Accreditation Project: A Final Report Documenting Methodologies and Major Results Volume II Appendices (IE78-071-62-9), March 1978.

Meier, J., Whitmore, S., and Olson, G. Special Report on Pupil Achievement (IR79-000-31-30), August 1980.

An Interpretive Analysis of the 1979-80 Evaluation of State Compensatory Education Projects

Stephen W. Hebbler

State Compensatory Education (SCE) Funds are awarded to local school districts for use in helping educationally disadvantaged students in the basic skills areas. The Dallas Independent School District (DISD) operated nine SCE-funded projects during the 1979-80 school year. Four of the projects were designed to help students in reading, one focused on mathematics, and two helped students in both reading and mathematics. Another project trained teachers to help students speaking a non-standard English dialect to acquire skills in standard English. Finally, the implementation and effect of the above projects were monitored through a separate evaluation component.

This report contains a brief discussion of each of the SCE projects (including a description of the project objectives and the major evaluation findings), a Summary and Conclusions section, and a bibliographical list of final evaluation reports from which this interpretive analysis was compiled.

Basic Skills Core K-6

There is evidence that low achievement in reading during the elementary school years is related to several variables, including gross and fine motor skills, eye-hand coordination, auditory and visual analysis, and various language skills. The Basic Skills Core K-6 program was designed to help students overcome reading achievement deficiencies by providing them with instructional activities focusing on the variables listed above. The project operated in 17 DISD schools and utilized a staff of 16 teachers and two reading resource teachers. It offered instruction in piano or violin supplemented with instruction in general music, art, and language activities to 670 selected Title-I-eligible students in kindergarten through sixth grades. Students in kindergarten and first grade were scheduled to meet four times per week in 30-minute classes of five or six students. Students in the second grade and above met in similar 30-minute classes three times per week and in an individual violin or piano tutorial 30-minute session one time per week.

Program objectives included assessment of students and assistance in the mastery of the following skills: (a) motor processes, (b) eye/hand coordination, (c) auditory analysis, and (d) visual analysis. Attainment of these objectives was measured through results of screening tests in basic skill areas and achievement of criterion gains in reading as measured for District Title-I students on the Metropolitan Readiness Tests (MRT) and the Iowa Tests of Basic Skills (ITBS).

Screening tests for basic skills were administered to participating students by November 30, 1979, and a portion of these tests were administered again in April 1980. Significant mean gains were found for all students in kindergarten through grade three. Fourth-grade mean gains were also significant, with the exception of one test on directionality. No significant gains were recorded for fifth-grade students. Sixth-grade students made significant mean gains on three tests—drawing a person, manual dexterity, and body balance. The average performance on a test of visual-motor integration, given only in spring

1980, showed male students in kindergarten through third grade to be at expected age level. The average performance of female students was approximately one year behind expected age level in the first and third grades and at grade level in the other grades.

Participating students either met or exceeded the criterion percentile gain levels on ITBS Reading. The participating students, however, did not show significantly higher grade equivalent gains than a comparison group of Title-I students drawn from non-participating schools.

Basic Communications Skills 7-12

The Basic Communication Skills 7-12 Project (BCSP) provided materials and a support staff (supplementary reading teachers and aides) for students reading below specified grade levels at 36 secondary schools. In general, the BCSP was designed to improve the reading achievement level of the students who were served by the program.

Eligibility criteria varied according to student grade level. According to the BCSP proposal, seventh- and eighth-grade students who scored below 3.0 grade equivalents on the ITBS and ninth-grade students who scored below the 4.0 grade equivalent level on the ITBS were eligible for BCSP services. At the high school level, tenth-, eleventh-, and twelfth-grade students who scored below the 20th percentile on the ITBS or the Iowa Tests of Educational Development (ITED) were eligible for program services. In cases where an ITBS/ITED score was not available, or where these scores were felt to be invalid, other tests (e.g., the Gates-MacGinitie Reading Tests) were used as standardized eligibility criteria. Other eligibility criteria included teacher, parent, and counselor recommendations.

Generally, the staff functioned as specified in the proposal. Class sizes exceeding the authorized number existed only at Cary. The majority of the teachers instructed only BCSP students. Exceptions to this were noted only at Comstock, Marsh, Rusk, Sequoyah, and Wilson. Major instructional emphasis in all BCSP classes was given to vocabulary development, reading comprehension, and consumer skills. Day-to-day instructional arrangements varied according to the specific needs and reading levels of the students.

The average grade equivalent gain on the ITBS reading test for students in grades 7 and 8 was approximately six months while grade 9-11 students gained approximately four months. In both analysis groups there were relatively large standard deviations indicating a wide range of obtained gain scores.

When the expected percentile gain distribution (stated in the project proposal) was compared to the actual distribution of gains obtained by BCSP students, two major findings were noted. First, the percentages of students who exhibited no measurable gain from pretest to posttest was much greater than expected for both the grade 7-8 and grade 9 groups. This finding must be interpreted carefully, however, since the percentile gains stated in the proposal were very optimistic. Second, almost twice as many grade 7-8 students as expected achieved gains of 10 percentile points or more. This is especially significant since a 10-point percentile gain for students with a low pretest percentile rank (required for participation in the BCSP program) corresponded to a substantial increase in raw score on the test.

Using a Direct Instruction Model

The full title of this project was "Using a Direct Instruction Model to Teach Advanced Reading and Thinking to Underachieving Elementary and Middle School Students." The Direct Instruction project operated in two DISD schools (Harllee Elementary School and Hood Middle School) and utilized an instructional staff of six teachers and two instructional supervisors.

Instruction utilizing the Science Research Associates (SRA) Corrective Reading Program in Decoding and Comprehension was provided to 57 fourth-grade students at Harllee and a selected group of 56 seventh-grade students at Hood. Class periods lasted approximately two hours and consisted of small groups which ranged from as few as 5 to as many as 12 students. The classes were characterized by quick-paced, teacher-student oral interaction and positive recognition for correct work and classroom participation. The Direct Instruction project staff provided training for participating teachers in direct instruction techniques and monitored instructional procedures and student progress in all project classes. Direct Instruction was implemented during the last seven months of the year at Harllee and for the last six months of the year at Hood.

The project's two objectives were (a) to raise the achievement in reading and thinking skills of participating students to above grade level within two years, as measured by District standardized tests, and (b) to implement and document an instructional management system for supporting the Direct Instruction Corrective Reading Program.

Since this was the first year of the program, the evaluation emphasis was on program implementation. The program was well implemented in terms of classroom procedures, monitoring of student progress, and training of teachers. Draft documentation for teacher training in direct instruction techniques and procedures for testing students for placement in the curriculum were completed.

End-of-year grade equivalent scores for participating students (system-wide testing, Form 8 of the ITBS, spring 1980) were 2.8 at Harllee and 4.5 at Hood. These scores were 2.0 and 3.3 years below grade level, respectively, at the time of testing. Student gains on DISD system-wide tests were not presented because the system-wide testing interval of spring 1979 to spring 1980 did not conform to the shorter program teaching span. Student gains using system-wide testing data will be presented in the 1980-81 project evaluation.

The project staff performed calculations to assess student growth during the program interval (7 months at Harllee, 6 months at Hood) using a Form 5 ITBS that was administered to students immediately before instruction began. The posttest was the spring 1980 ITBS Form 5. The rates of gain reported by project personnel were 1.4 months for each month of instruction for Harllee students and 1.3 months for each month of instruction for Hood students. These rates of gain, though below the program's objective, were high for underachieving students such as those who participated in the Direct Instruction Project.

In order for the average student to meet the project objective of reaching grade level after two years in the Direct Instruction program, during 1980-81 Harllee students must have an average grade equivalent gain of 3.0 years and Hood students must have an average gain of 4.3 years. With instruction beginning earlier during the second year of the project (1980-81) and with the experience the students and staff will have with the Corrective Reading curriculum, progress toward the student performance objective can be made during the entire year.

Reading Technology for Mastery Learning

The Reading Technology for Mastery Learning (RTML) project was designed in two components. The first part of the RTML project involved the establishment of three New Century Reading Centers and seven Mastery Learning Centers in eight schools in the East Oak Cliff Subdistrict (EOC). In each reading center, a teacher and an aide provided an individualized, structured reading program to meet the needs of eligible students.

The second facet of the RTML project involved the implementation of an Instructional Objectives Management System (IOMS) in each grade 4-6 school in the East Oak Cliff Subdistrict. These systems, contracted from Gulf Educational Systems, Inc. (GESI), were to provide an inventory of all relevant intructional materials in the schools and individual diagnoses and prescriptions for students' weaknesses. The specific objectives of the RTML project were (a) to raise the reading achievement level of students using the New Century and Mastery Learning centers as measured by standardized test scores, (b) to provide a customized computer-instructional management system in reading for teachers of language arts in grades four through six, (c) to provide project teachers with orientation and staff development by holding training sessions focusing on reading diagnosis and prescription, and (d) to provide orientation and training for parents to insure their cooperation in the implementation of the program.

The New Century/Mastery Learning component of the RTML project involved 8 schools, 13 teachers, 4 aides, and approximately 900 students in grades K through 12. The IOMS component included 16 EOC grade 4-6 centers.

The three New Century Reading Centers and five Mastery Learning Centers were installed in the eight EOC schools. The New Century Centers were installed and operational by December 1979 and the last Mastery Center began operation in February 1980. The computer management system, which is an integral part of the Mastery Centers, never overcame the logistical problems of receiving and delivering daily information for each center. The results of participation in the reading centers was generally inconclusive. However, the ninth-grade students using the Mastery Learning Centers at South Oak Cliff (SOC) Ninth-Grade Center and F. D. Roosevelt High School achieved significantly greater grade equivalent gains (ITBS Reading Test) than a similar comparison group.

All of the teachers except one (88%) felt that participation in the RTML reading centers would have a positive impact on reading skills over the course of a school year. One teacher stated that the effect was unknown.

The IOMS were never developed for the 16 designated schools. The schools inventoried their instructional material and submitted those inventories to GESI. On May 19, 1980, students in the schools were pilot tested to provide information for a May 26 staff development for principals explaining what services would be available in the 1980-81 school year. It was evident that the IOMS component was not implemented for the 1979-80 school year.

State Compensatory Education Summer School

The State Compensatory Education Summer School Project was designed as a high intensity course of study providing instruction in reading and mathematics for students completing third or sixth grade in 1979-80 and scoring 50% or less on the Basic Objectives Assessment Test (BOAT). The project used the Science Research Associates (SRA) Corrective Reading and Corrective Mathematics programs and was conducted during the regular DISD summer school period. Approximately 300 students and 85 teachers participated in the program.

Observations conducted by evaluation personnel revealed teachers and students engaged in reading and mathematics instruction characterized by a very high level of interaction and student involvement. Since the students were actively participating in the classroom activities, there were no discipline problems. Most of the teachers seemed comfortable with and knowledgeable about the instructional method being employed. The student-to-teacher ratios in the summer school classrooms were conducive to student learning and allowed the teachers, who were new to the direct instruction method of teaching, to gain valuable experience with small groups of students. The student-to-teacher ratios varied from 1:2 to 1:5, with a typical classroom averaging 3 or 4 students. Observations indicated that the summer school teacher supervisors worked closely with the classroom teachers and visited their classrooms at least twice each week.

Results of a survey administered to teachers during the last week of summer school revealed that the majority (77%) felt that direct instruction was an excellent method for teaching reading. Approximately 28% felt that direct instruction was an excellent method for teaching mathematics while 39% rated it as a good method. All of the teachers indicated that their students liked the direct instruction approach in reading; 84% said the students liked it in mathematics. Concerning the 20-hour pre-service training they had received in direct instruction, a majority of the teachers gave the sessions excellent ratings for comprehensiveness (71%), clarity (75%), pacing (53%), organization (67%), and usefulness (68%). They also considered the supervision they received during the summer school session to have been excellent in terms of promptness (91%), clarity (87%), and usefulness (84%).

The only item which received a large number of negative ratings by the teachers concerned conditions in their classrooms. Specifically, teachers indicated that the temperature in their classrooms made instruction very difficult (43%) or slightly difficult (27%). Observations made by the evaluators confirmed the problem. In several of the schools the air conditioning systems were completely out of service during most or all of the summer school session. The problem was so acute that two of the five schools had to suspend classes for one day each.

Student progress was assessed in terms of lessons completed at mastery in the Corrective Reading and Corrective Mathematics programs. While the normal movement through the programs is approximately one lesson per day, the SCE summer school students averaged 1.5 lessons in reading and .8 lessons in mathematics.

An Aesthetic Instructional Program

The entire title of the project was "An Aesthetic Instructional Program: Implications for Reading and Mathematics" (AIP). The major objectives of the AIP were to assemble a staff of knowledgeable, capable professionals (resident artists) and to provide instruction in several areas of aesthetics (dance/creative movement, dramatic arts/choral speaking, choral music, visual arts) focusing on skills and concepts that are correlated with achievement in reading and mathematics. Additionally, the program was to help develop students' abilities to exhibit self-confidence and poise and to provide the students with a culminating experience for demonstrating the skills acquired during the program.

Appoximately 200 students at 5 EOC schools took part in the instructional activities provided by the artists in residence. The schools involved in the project were all located in the East Oak Cliff Subdistrict. The students ranged from grade K to 12.

Due to a very late project start-up date, none of the original project objectives (such as instructional process and student achievement) were met during the months September 1979 through January 1980. However, a major thrust was undertaken during January to get the program underway.

Five artists-in-residence were identified during the month of February 1980 and began working with students in the target schools during March. Each artist worked with two classes twice a week. Interviews with the instructors indicated that they were generally satisfied with the concept of the AIP and felt that the students would benefit from the program. They were somewhat skeptical about the impact the program might have on students' reading and mathematics achievement, especially since the program had begun so late in the year. Two of the teachers stated that the lack of materials (most had been ordered but had not arrived) had hindered their instruction. Two of the artists indicated that adapting to working with school-age children (rather than with adults or peers in the art community) had taken longer than they had expected. The typical problems involved in working in an educational program (requisitions, securing signatures, schedule changes, last-minute changes in room allocations, etc.) were also new to some of the artists.

A wide range of instructional activities were engaged in by AIP students. The evaluation staff observed groups of students participating in choral and vocal music instruction, creative movement, preparation for a dramatic presentation, and preparation of drawings and paintings for display. The students, as well as the artists, seemed to be interested in the activities, although some of the kindergarten and first-grade students needed some prompting to remain attentive. All of the activities were in preparation for a performance or display at the project culminating exercise which was held on May 22. Several of the teachers stated that the pressure to get the students ready for the culminating exercises made it necessary for them to push the students for a product rather than allowing them to help the students explore various aspects of the visual and performing arts. They were hopeful that a longer project period during the 1980-81 school year would give them time for more creative work with the students.

The short instructional period precluded any meaningful analysis of student achievement that might be attributable to the project.

Computer-Assisted Instructional Mathematics Program

The Computer-Assisted Instructional (CAI) Mathematics Program provided an instructional vehicle that supplemented classroom instruction by remediating, extending, and providing private drill and practice that lended support to the classroom teacher. Implementation of this project employed the classroom use of TRS-80 microcomputers and the DISD Microcomputer Mathematics Program (MCMP) tapes in 22 middle schools. The CAI program was success-oriented and contained lessons for each individual student. Computation skills were presented with a steady increase in difficulty to keep the student challenged while working at his/her own pace. Lessons could be easily adjusted to individual needs. Students received immediate, yet private, correction, assistance, and review as needed, as well as positive reinforcement. The main objective of the CAI project was to increase student achievement on standardized and criterion-referenced mathematics tests.

In addition, the computer mathematics teachers and students in 20 high schools were to adapt and/or develop microcomputer instructional activities focusing on the specific mathematics objectives measured by the BOAT. Thirty-one computers and existing DISD mathematics staff were employed to implement this program.

The TRS-80 microcomputers and MCMP tapes were distributed to the participating schools beginning in December and continuing until mid-February. A total of 1,871 target students was selected by the 46 participating teachers to work on the computers. Of these students, 1,425 (76%) met the eligibility requirements (performing two or more grades below level on the Mathematics Baseline Objectives).

Of the 34 teachers who returned questionnaires by February 8, 1980, 30 (88%) reported that they had received training on the operation of the microcomputer. Twenty-seven of the 46 teachers (59%), representing 15 schools, kept individual record logs that monitored the computer activity of each participating student. A sample of students' record logs from 11 middle schools was used to calculate the average number of problems worked per month per sample student. The average ranged from 13.8 to 95.1 among schools with an overall average of 55.5 problems per month. The average student-to-computer ratio for these 11 schools ranged from 5:1 to 41:1 with an average of 17:1. Some schools did not utilize their computers as much as they could have. One school had only one class, and another school only had two classes that used the computers on a regular basis. Six teachers' students did not use the computers on any regularly scheduled basis. There were seven teachers that did not begin using their computers on a regular basis until March, and two teachers who did not begin until April.

The mean pretest grade equivalent scores (G.E.) on the Shaw-Hiehle Computation Test (SHCT) ranged from 3.07 to 4.94 among schools with an average of 4.64. The mean posttest G.E. ranged from 3.76 to 6.08 with an average of 5.23. The mean gain per month in the program ranged from 0.46 months to 6.75 months with an average of 2.06. The average time between pretest and posttest ranged from 1.0 month to 7.5 months with an average of 3.2 months. The gains made from pretest to posttest on the SHCT were statistically significant both for program students and for a group of comparison students, with the comparison group exhibiting slightly higher gains. The comparison students were students who were eligible for the CAI program but did not participate.

Thirteen (65%) of the 20 high schools chose one or more life skills objectives from the BOAT to work on, but programs were received from only eight (40%) of the 20 schools. A total of 17 programs was received from these eight schools. At two high schools the computers were used for CAI with ninth-grade students rather than for developing microcomputer activities focusing on the BOAT objectives.

Standard English as a Second Dialect

The entire title of the project was "Standard English as a Second Dialect for Speakers of a Non-Standard English Dialect" (SESD). The project was designed to provide a core of teachers in the East Oak Cliff Subdistrict with the skills necessary for helping students, whose primary dialect was other than standard English, acquire proficiency in the use of standard English. The SESD project consisted of a series of seminars and work sessions presented by consultants who were experts in language and dialectology. Information received from the seminars was to promote an understanding of the relationship between teachers' attitudes toward students' language and the effect of those attitudes on learning.

The specific objectives of the SESD project stated that the designated teachers would participate in a series of seminars and work sessions. From these sessions the teachers would acquire knowledge of language and dialectology and its implications for learning. Using the skills learned in the work sessions, the teachers were to demonstrate their understanding of the SESD techniques by developing lessons and activities for the classroom incorporating the SESD knowledge. The teachers were also to demonstrate an understanding of the concept of language acceptance and its effect in the classroom.

Although the SESD project was not completely organized and implemented until February 1980, seven full-day training sessions were held with the consultants. The teachers were instructed in both theory and practical application of theory in the classroom. Lesson plans and a few examples of East Oak Cliff dialect were accumulated. Teacher attitudes toward the project were measured on a pre- and posttest basis. Results from 17 teachers who completed both attitude scales indicated an overall positive change of attitude regarding a student's home dialect. However, examination of individual items indicated that some teachers (27%) still found it difficult to accept primary dialects as legitimate languages.

Evaluation Component

The SCE evaluation component was designed to provide the DISD and the Texas Education Agency with specific information needed to determine the implementation, ongoing processes, and final outcomes of each project funded by SCE. In addition, the evaluation component was to provide process information to SCE project managers throughout the year. Formal products of the evaluation component included planning documents, evaluation instruments, interim reports and memoranda, as well as a final evaluation report for each SCE project.

The SCE evaluation staff consisted of one senior evaluator funded by the DISD Department of Research and Evaluation and six SCE-funded positions--one senior programmer, three assistant evaluators, and two classified personnel.

A wide variety of evaluation activities was engaged in by the SCE evaluation staff. The particular tasks and activities varied widely from project to project; however, because of the diversity in the characteristics (instructional emphasis, grade levels, staffing arrangements, etc.) of the funded projects. The major activities were generally consistent with the formal evaluation plans. However, if major changes in project objectives or activities occurred during the year, the evaluation design was adapted to reflect the project as it was actually being implemented. One common reason for slight variations in some of the analyses appearing in the formal evaluation plans was a change in the ITBS test editions used by System-wide Testing. Many of the evaluation reports relied heavily on achievement data obtained through System-wide Testing. The change in test edition, and the corresponding score conversions, generated an unknown error factor which rendered the test data (especially achievement gains) difficult to interpret.

The ultimate impact of any program evaluation resides in the constructive use of the findings and results by the audience (report recipients). However, the major visible products of the evaluation component were the documents which were produced. For each project funded under SCE during 1979-80, the following documents were prepared and are on file with the manager of the evaluation component.

- Evaluation Overview
- Formal Evaluation Plan
- Interim Evaluation Memorandum
- Final Evaluation Report

Most of the information contained in the above documents was presented to project personnel either before or immediately after the documents were completed.

Summary and Conclusions

Of the nine projects funded by SCE during 1979-80, five were at operational level early in the school year. The CAI mathematics program began some staff development activities but most of the participating schools could not provide students with CAI until the computers arrived around the beginning of the third quarter. The Reading Technology for Mastery Learning (RTML) project also suffered because of the late arrival of instructional equipment and computers. The various reading laboratories began operation between December 1979 and February 1980. The Instructional Objectives Management System component of the RTML project, however, was never implemented. The Standard English as a Second Language project and the Aesthetic Instructional Program did not begin operations until after functional project facilitators were assigned to them in January 1980.

In terms of student achievement, the following programs appeared to have had a positive impact on participating students: Basic Skills K-6, Basic Communications Skills 7-12, Direct Instruction, State Compensatory Education Summer School, and Computer Assisted Mathematics. Although several of those programs set very optimistic student achievement goals for the 1979-80 school year, the observed gains (on the various standardized and criterion-referenced tests that were used) indicated that students participating in the projects were progressing in the basic skills areas. Two projects, RTML and the Aesthetic Instructional Program were implemented too late in the year to allow a meaningful assessment of their impact on participating students. However, data collected from the RTML reading laboratory instructors indicated that students were progressing through the curriculum materials presented within those programs. The Standard English as a Second Dialect project seemed to be effective, during the short period that it was in operation, in helping teachers to begin thinking in terms of the needs of students who speak a non-standard form of English as their primary language.

A chart summarizing the 1979-80 evaluation findings is included at the end of this report.

1979-80 SCE Final Evaluation Reports

Goedecke, M. A. and Hebbler, S. W. Evaluation of the State Compensatory Education (SCE) Reading Technology for Mastery Learning Project, 1979-80 (CE80-305-31-01), September 1980.

Goedecke, M. A. and Hebbler, S. W. Evaluation of the 1979-80 State Compensatory Education Standard English as a Second Dialect for Speakers of a Non-Standard English Dialect Project (CE80-304-31-16), September 1980.

Hebbler, S. W. and Weckerly, D. L. Evaluation of the 1979-80 State Compensatory Education Basic Communications Skills 7-12 Project (CE80-301-31-01), September 1980.

Hebbler, S. W. Evaluation of the 1979-80 State Compensatory Education Summer School Project (CE80-307-31-01), September 1980.

Hebbler, S.W. Evaluation of the 1979-80 State Compensatory Education Evaluation Component (CE80-308-31-05), September 1980.

Hebbler, S. W. Evaluation of the 1979-80 State Compensatory Education Project—An Aesthetic Instructional Program: Implications for Reading and Mathematics (CE80-306-31-20), September 1980.

Patton, D. and Hebbler, S. W., Evaluation of the 1979-80 State Compensatory Education Computer-Assisted Instructional (CAI) Mathematics Program (CE80-302-31-02), September 1980.

Smith, G. B. Evaluation of the 1979-80 State Compensatory Eduation Basic Skills Core K-6 Program (CE80-300-31-01), September 1980.

Smith, G. B. Evaluation of the 1979-80 State Compensatory Education Project: Using a Direct Instruction Model to Teach Advanced Reading and Thinking to Underachieving Elementary and Middle School Students (CE80-303-31-05), September 1980.

Summary Chart of Evaluation Findings: 1979-80 State Compensatory Eduation Projects

Project/Component	Subject Area(s)	Number of Schools	Number of Students	Degree of Project Implementation	Degree to which Project Objectives were Met
Basic Skills Core K-6	Reading	17	670	Implemented as plan planned. A few staff positions could not be filled.	All major project objectives were met.
Basic Communications Skills 7-12	Reading	36	3450	Implemented as fully as possible but many allocated positions could not be filled.	Implementation objectives were met despite personnel vacancies. Very optimistic student performance objectives not met.
Using a Direct Instruction Model	Reading	2	113	Implemented as planned	Instructional implementation objectives met. Progress toward two-year student performance objective not measured during the first year. Management system development objective completed.
Reading Technology for Mastery Learning (Reading Laboratories)	Reading	8	900	Reading Laboratories implemented after January 1, 1980. Computer feedback system not fully operational.	No significant differences in reading achievement between RTML students and comparison students except in Grade 9.

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Chart (Cont'd.)

Project/Component	Subject Area(s)	Number of Schools	Number of Students	Degree of Project Implementation	Degree to Which Project Objectives were Met
(Instructional Objectives Management System)	Reading	16	N/A	Implementation begun but not completed	Objectives for this component were not met.
SCE Summer School	Reading and Mathematics	5	200	Project fully implemented as planned	Student progress in the program curricula was rapid.
Aesthetic Instructional Program	Reading and Mathematics	5	200	Project was not implemented until March 1980. Instructional Activities were implemented during March, April, and May	Instructional implementation objectives were met but only during the second half of the school year. The Project's effect on student achievement could not be measured due to the short instructional period.
Computer Assisted Mathematics (Instructional)	Mathematics	22	1870	Computers arrived late at all schools (November-February). Project implementation varied widely from school to school.	Implementation objectives met once computers arrived. Significant gains (pre to post) on SHCT. No significant difference between gains of program and comparison students.
(Computer Program Development)	Life Skills	18	N/A	Computers arrived late. Machines were ready for use after January 1980.	Only 8 of the 18 schools forwarded completed computer programs.

Chart (Cont'd.)

Project/Component	Subject Area(s)	Number of Schools	Number of Students	Degree of Project Implementation	Degree to Which Project Objectives were Met
Standard English As a Second Dialect	Staff Development	N/A	N/A	Project was not implemented until February 1980. The 17 teachers participated in seven seminars.	In terms of seminars completed, objectives were met. But all seminars were held during the last half of the school year.
Evaluation Component	Evaluation	N/A	N/A	Evaluation activities were carried out for each of the SCE projects. Problems arising from the change in tests administered by System-wide Testing precluded some planned analyses.	Formal Plans and Final Evaluation Reports completed for each project.

RE80-807-61-30

An Interpretive Analysis of the 1979-80 Evaluation of the Emergency School Aid Act (ESAA) Programs

Wayne R. Murray, Gary Elliott, and John H. Miller

The Dallas Independent School District (DISD) has been receiving Emergency School Aid Act (ESAA) funds since the 1973-74 school year. The purpose of ESAA funds is to (a) meet needs incident to the elimination of minority group segregation, and to (b) aid school children in overcoming the educational disadvantages of minority group isolation. Over the last seven years, a variety of instructional and support ESAA programs have been implemented in the DISD. During the 1979-80 school year, 13 ESAA components were implemented in the DISD.

There were nine basic grant components. The grade 4-6 Mathematics Project and the grade 7-8 Mathematics Project were two of them. Through these two projects remedial mathematics instruction was provided to students at 44 schools. In the Magnet School Reading Program, remedial reading instruction was provided to high school students at six schools. The Bilingual Education component was initiated to provide bilingual instruction to students at 13 schools. Counseling services were provided at 27 grade 4-6 schools to students, teachers, and parents by staff of the Human Relations and Guidance Project. The Cultural Crossroads Center made presentations on multi-cultural awareness to students from 10 grade 4-6 schools. The Community Relations Project staff involved parents in volunteer activities which benefited 27 schools. Alternative strategies of discipline were presented to and discussed with personnel and parents from 27 schools by staff of the Special Student Concerns Project. Finally, staff of the Administration component was responsible for providing administrative support to all ESAA components.

Four additional components were implemented. In the Pilot Project, remedial reading instruction was given students at 21 schools in the East Oak Cliff Subdistrict. Personnel of the Special Compensatory Project taught mathematics to students at four schools. Through another bilingual education component, the Bilingual Project, students at 29 schools were given bilingual instruction. Finally, students at 11 schools of the Catholic Diocese of Dallas were instructed in reading through the Private Non-Profit Schools Project.

The discussion which follows is divided into 13 subheadings. The evaluation of each of the 13 components is presented under the subheadings. The first nine correspond to the nine basic project components. The last four correspond to the remaining four components. A brief Summary and Conclusions section is provided at the end of the report.

Basic Project, Grades 4-6

Description and purpose. The ESAA Basic Project for students in grades four, five and six provided remedial mathematics instruction in the mathematics laboratory of 27 grade 4-6 schools impacted by the court-ordered desegregation plan. Students were eligible for this program if they were achieving below grade level placement and were being bused for desegregation purposes. The students went to the ESAA mathematics laboratory during part of their regular mathematics class.

The students in this program were to increase their mathematics skills so that their posttest scores would be higher than projected without this program. Statistically significant differences were expected between pretest and posttest as well as actual posttest and projected posttest scores. Projected posttest scores were obtained by calculating average yearly growth in grade equivalent points and adding this average to the pretest score. Students were then expected to obtain a posttest score higher than the projected posttest score.

Evaluation results. In general, the project seemed to be implemented as designed. Performance on the Mathematics Test of the Iowa Tests of Basic Skills (ITBS) was used to monitor students' progress. Form 5 of the ITBS was administered in the spring of 1979 as a pretest, and Form 8 was administered in the spring of 1980 as a posttest. Mean grade-equivalent pretest scores for students in grades 4, 5, and 6 were 2.7, 3.1, and 3.7, respectively. Corresponding posttest scores were 3.3, 4.1, and 4.8.

At all three grade levels, the pretest-to-posttest gains were statistically significant. Also, actual posttest scores in grades 5 and 6 were greater than projected posttest scores. Therefore, the objective of the project was met for these two grades. This objective was not met for students in grade 4. A conservative approach would urge caution in the interpretation of the data because of the many sources of invalidity in the one-group (i.e., no control group) pretest - posttest design and the uncertainty of the comparability of the different forms of the test used in the evaluation.

Basic Project, Grades 7-8

Description and purpose. The ESAA Basic Project for Middle Schools offered remedial mathematics instruction for students in grades seven and eight. Students who were below grade level and were bused (in schools where busing was court-ordered for desegregation) were served in a mathematics laboratory in their school during their regular mathematics class. Seventeen middle schools participated in the program.

The overall objective of this program was for students to improve their mathematics skills more than would have been expected without this program. Statistically significant differences were expected between students pretest and posttest scores as well as actual posttest and projected posttest scores. Projected posttest scores were obtained by calculating average yearly growth in grade equivalent points and adding this average to the pretest score. Students were then expected to obtain a posttest score higher than the projected posttest score.

Evaluation results. The project was implemented in all 17 schools as specified in the proposal. Performance on the Mathematics Test of the ITBS was used to monitor students' progress. Form 5 of the ITBS was administered in the spring of 1979 as a pretest, and Form 8 was administered in the spring of 1980 as a posttest. Mean grade-equivalent pretest scores for students in grades 7 and 8 were 4.7 and 5.0, respectively. Corresponding posttest scores were 5.6 and 6.1. At both grade levels the pretest-to-posttest gains were statistically significant. Also, actual posttest scores at both grade levels were greater than projected posttest scores. Therefore, the objectives of the project were attained.

The performance objectives were attained in this program but a conservative approach is urged because of the many possible sources of invalidity in the one-group (i.e., no control group) pretest-posttest design. In addition, the comparability of the two different forms of the test, used respectively for pretest and posttest, is uncertain.

Basic Project, Magnet School Reading Program

Description and purpose. The ESAA Basic Project in the magnet schools was to provide a supplemental reading program with materials and support staff (a resource teacher and an aide) in each of six high schools. The program was organized as to best serve those students at each school. Each school had a reading laboratory for individualized instruction, and all schools had several supplementary reading classes which met daily.

The resource teachers provided supplemental reading instruction each day and also taught life skills to the students. Students were in grades 9 through 11.

Students were to make gains in reading as measured by scores on the Tests of Achievement and Proficiency (TAP) and the Basic Objectives Assessment Test (BOAT).

Evaluation results. All staff positions, six resource teachers and six ESAA-funded aides, were filled by September 1979. Generally, the staff functioned as proposed. In addition to reading classes, the resource teacher at the High School for the Health Professions instructed English classes at the school.

Approximately 18% of the magnet school reading students passed the BOAT (i.e., scored at least 70% correct). The percent of students passing ranged from 8.3% at the Transportation Institute to 25.6% at the Business Management Center.

Performance on the TAP was for the most part consistent across grades within a school. However, there was considerable variability between schools. The median percentiles ranged from 1.4 (grade 9 at Transportation Magnet) to 27.0 (grade 11 at the Magnet Center for Public Services: Government and Law).

Because of changes in the System-Wide Testing program it was not possible to examine pretest-to-posttest changes in the students' reading comprehension scores. However, reading achievement as measured by the TAP in early May 1980 was low.

The observed variability in test scores across schools is most likely a function of the type of student attracted to the school and the selection criteria for inclusion in the ESAA reading program.

Basic Project, Bilingual Education

Description and purpose. The ESAA Bilingual Component provided supplementary bilingual instruction in the areas of language arts, mathematics, social studies, and science to students who were of limited English proficiency. Being bused or Spanish-language dominance were not requirements to be served by this program.

The program objectives were to develop the bilingual capabilities and raise the level of achievement of all students in the program. To promote understanding and appreciation of the multicultural values and traditions of the ethnic groups was also a program objective. The students were to exhibit gains on the Inter-American Test of General Ability with 60% of the students showing a 20% gain and the remaining 40% of the students demonstrating a 10% gain from pretest to posttest.

Evaluation results. Some deviations from the proposal relative to implementation procedures and some staffing problems were noted. Not all resource teachers and aides were performing activities as specified in the proposal. Also, two of the eight allocated aide positions were not filled.

Students' performance on the Inter-American Tests did not meet the objectives stated in the proposal. The proposed 20% pretest-to-posttest gain for 60% of the students was actually achieved by only 22.7% of the students.

It is the opinion of the evaluators that the achievement objectives for this program were unrealistic. Although the achievement goals were not met, improvement in the posttest scores was observed.

Basic Project, Human Relations and Guidance

Description and purpose. Each of the 27 grade 4-6 ESAA schools was assigned an ESAA counselor. Counselors were advised by Campus Planning Teams composed of the counselors, school principals, school teachers, and parents. Counselors performed needs assessments and developed plans to meet those needs. Counseling activities included student, parent, and teacher counseling sessions; classroom discussions; and parent and teacher workshops.

This component was designed to provide guidance and counseling services for parents, teachers, and students in grades 4 through 6 involved in the desegregation process in 27 Dallas Independent School District intermediate schools.

Evaluation results. Campus Planning Teams were operating as planned by the end of September 1979. Counseling programs were implemented by

December 1, 1979, the proposed completion date for this activity. Individual campus guidance plans were developed at every school, subsequent to needs assessments. Monthly staff development meetings were conducted by the program manager and attended by the counselors. When asked about their attitudes toward the program, all 24 counselors who responded to a questionnaire stated that the main strength of the program was the cooperation and support of faculty members and parents.

Counselors also indicated weaknesses they felt affected the program. Some of these weaknesses were:

1. Not enough time for guidance activities and planning due to testing and other central office related duties (N=4 counselors).
2. Not enough parental and/or community involvement (N=4).
3. Too many students for one counselor (N=3).
4. Lack of space and finances (N=2).
5. Not enough interaction between counselors (N=2).

Basic Project, Cultural Crossroads Center

Description and purpose. The ESAA Cultural Crossroads Center is a museum-like facility which contains multicultural displays. The Center occupies a portion of the second floor at Urban Park Elementary School. Sixth-grade students from 10 impacted schools were to visit the Center two times during the school year for approximately two hours to view the exhibits and participate in various cultural activities designed to increase their awareness of and appreciation for their own culture as well as the culture of others.

Students who attended the Center were expected to show higher scores on the Multi-Cultural Awareness Scale which was developed by the

Department of Research and Evaluation. Students were given the test either upon their arrival at the Center (pretest) or at the conclusion of their visit (posttest).

Evaluation results. Students were taken to the Center during the fall semester, but because of lack of funds, they stayed in their regular school and Center personnel visited them during the spring semester. Three Multi-Cultural Awareness Scales were developed and employed and each one reflected higher posttest than pretest scores. Two instruments were used during the fall semester and the third was used during the spring semester. The average percent correct on the fall pretests were 31.7 and 39.4. The respective posttest average percent correct scores were 39.4 and 49.2. Pretest and posttest average percent correct for the instrument used during the spring semester were 44.2 and 78.4, respectively.

All the data collected for the evaluation of this project indicated the Center did promote awareness of the various cultures in our pluralistic society. The larger gains observed during the spring semester could be attributed to either the type of material presented, the mode of presentation (trips to the Center versus presentation at each school) or the measurement instrument.

Basic Project, Community Relations

Description and Purpose. Community specialists implemented parenting programs such as parenting workshops and Parent Teacher Association presentations. Also, they obtained volunteers in their communities to work in the schools as tutors, office clerks, nursing assistants, and lunchroom and hall monitors.

The purpose of this project was to keep parents and interested citizens better informed and aware of school programs and alternatives, and to increase the involvement of parents and interested citizens in the educational process.

Evaluation results. Overall, the project was implemented as planned and the goals of the program were attained. Needs assessments were performed at each school at the beginning of the school year. Approximately 2,294 volunteers were obtained and assigned various tasks in the schools. They worked about 62,978 total hours, or an average of 27 hours per volunteer. During the 1978-79 school year 2,178 volunteers worked a total of 66,164 hours. It is interesting to note that while the total number of volunteers increased during the past two years, the actual number of volunteer hours decreased. Community specialists also contacted parents at home about situations adversely affecting students' learning.

Basic Project, Special Student Concerns

Description and purpose. Seven-member teams composed of teachers, administrators, and parents were chosen from each of the 27 grade 4-6 schools impacted by court-ordered desegregation. In retreat settings, each team participated in a one-day workshop pertaining to alternative strategies of discipline.

The purposes of the program were (a) to present and demonstrate the use of resource materials available at the Intervention Resource Center that pertained to alternative strategies of discipline and (b) to serve intervention teams, faculties, and/or parents at participating grade 4-6 schools.

Evaluation results. The program appeared to be implemented as planned in a majority of the grade 4-6 schools impacted by the court-ordered desegregation plan. Questionnaires were sent to the Intervention Team school building principals in the 27 participating grade 4-6 schools. Of that number, 23 (85%) were returned. Eighty-seven percent (20 of 23) indicated that the project staff provided training in the use of alternative strategies of discipline. Nine percent (2 of 23) indicated that their team was not provided training and four percent (1 of 23) did not respond.

Eighteen (78%) respondents indicated that they attended an intensive one-day seminar geared toward the grade 4-6 building principals and/or principals' designees. Twenty-two percent indicated they did not attend.

Eighteen principals (78%) indicated that the seven-member team had been selected to participate in the school-based training. Twenty-two percent stated that the teams had not been selected.

Eighty-three percent (N=19) of the respondents indicated that technical assistance was provided by project staff and trainers to the school-based team. One (4%) respondent indicated no technical assistance had been given, and three respondents (13%) did not answer this question.

Basic Project, Administrative Services

Description and purpose. The staff of this component facilitated and supervised the implementation of all ESAA components. A management plan was developed, and was followed throughout the year.

This project was designed to provide continuous assistance to project personnel in the planning, implementation, and management of all ESAA components.

Evaluation results. All program managers indicated that the Administrative Team provided excellent assistance in all of the areas required. Each had sought assistance or consultation on numerous occasions and each indicated that the assistance provided was more than adequate. In addition, the Administrative Team attempted to include students, teachers, and parents in the ESAA Projects' decision-making process. The acting director of the ESAA program stated that this objective was attained through the District-wide Student Advisory Committee and the District-wide Advisory Committee. The Administrative Team solicited input during proposal writing stages and contacted parents and teachers to attend special meetings. Further, after a regularly scheduled Advisory Committee meeting a public hearing was held at the School Administration Building. The purpose of the meeting was to discuss the proposed ESAA Program for the 1980-81 school year. However, no persons other than the regular Advisory Committee members and Program Managers attended, and the meeting was adjourned without public comment.

Pilot Project

Description and purpose. This ESAA sponsored reading program was implemented in 20 East Oak Cliff Subdistrict schools: 12 intermediate schools, 4 middle schools, and 4 high schools. Personnel developed student instructional plans, maintained records of student progress, and developed modules and strategies for vocabulary development. They also instructed students in reading comprehension and in vocabulary development. Students were to show academic improvement in reading comprehension as measured by scores on the ITBS and the TAP. In the high schools, students also received life skills training. Twelve staff development sessions for all personnel were held throughout the year. The project was to include a community involvement program. However, because of a budget change, this part of the program was not implemented.

Evaluation results. Except for the community involvement program, the Pilot Project was, in general, implemented as planned. In grades four through eight Form 5 of the ITBS was administered in the spring of 1979 as the pretest, and Form 8 was administered in the spring of 1980 as the posttest. ESAA students demonstrated gains from pretest to posttest on the reading comprehension subtest of the ITBS. In grades five through eight, these gains were higher than the expected improvement had there been no supplementary ESAA program. Mean grade equivalent pretest scores for participating students were: grade 4, 2.5; grade 5, 3.1; grade 6, 3.7; grade 7, 3.6; and grade 8, 4.2. Corresponding posttest scores were: grade 4, 3.0; grade 5, 4.0; grade 6, 4.7; grade 7, 4.4; and grade 8, 5.0. Care should be exercised in interpreting these results, however, because the comparability of the different forms of the pre- and posttests is uncertain.

On the spring 1980 administration of the TAP, students in grades nine through eleven at the four secondary schools had mean percentile ranks ranging from 1.9 to 10.5.

Special Compensatory Project

Description and purpose. The ESAA Special Compensatory Project offered remedial mathematics instruction for fifth- and sixth-grade students who were Title-I eligible but, because of busing for desegregation, attended non-Title-I schools. The Mathematics for Individual Achievement program was to be used througout the project period.

The overall objective was to develop the mathematics skills of the students who were served at a faster rate than would have been expected if the students were not in the program. Specifically, the students were to exhibit a significant gain on the Mathematics Test of the ITBS from pretest to posttest and 60% of the students were to show higher posttest scores than would have been expected under a non-treatment condition.

Evaluation results. One of the schools did not use the Mathematics for Individual Achievement Program. Otherwise, the project seemed to be implemented as designed.

Performance on the Mathematics Test of the ITBS was used to monitor students' progress. Form 5 of the ITBS was administered in the spring of 1979 as a pretest, and Form 6 was administered in the spring of 1980 as a posttest. Mean grade-equivalent pretest scores for students in grades 5 and 6 were 2.9 and 3.3, respectively. Corresponding posttest scores were 3.8 and 4.6. Both of the objectives related to student performance were achieved with both grades showing statistically significant gains from pretest to posttest and 75% of the students showing higher-than-projected posttest scores.

The results of the evaluation were favorable to the program. However, the reader is urged to use caution because of the possible sources of invalidity in the one-group (i.e., no control group) pretest-posttest design used in this evaluation. In addition, caution is also urged because different forms of the ITBS were used for the pretest and posttest. Statistical procedures were employed to enable pretest-to-posttest comparisons but the magnitude of the error made in the process of computing gain scores is unknown.

Bilingual Project

Description and purpose. The ESAA Bilingual Project provided supplementary bilingual instruction in the areas of language arts, mathematics, social studies, and science. Students were served by this program if they were of limited English proficiency. Being bused or Spanish-language dominant were not requirements for participation in this program.

The program's overall objectives included (a) to develop bilingual language capabilities and raise the level of achievement of all students in the program, (b) to promote understanding and appreciation of the cultural values and traditions of all ethnic groups, (c) to increase skills of all staff participating in the project, and (d) to involve community and parents in the program.

The students were expected to show gains in general ability scores as measured by the Inter-American Series of Tests. Of those being served, 60% were expected to gain 20% and the remaining 40% of the students were expected to gain 10% from pretest to posttest.

Evaluation results. Some deviations from the proposal relative to implementation procedures and some staffing problems were noted. Because of a lack of certified bilingual personnel some schools were not able to provide basic instruction in the student's dominant language. Also, not all resource teachers and aides performed all duties listed in the proposal.

The performance of the students on the Inter-American Tests did not meet the objectives stated in the proposal. The proposed 20% pretest-to-posttest gain for 60% of the students was actually achieved by only 31.6% of the students.

It is the opinion of the evaluators that the achievement objectives for this program were unrealistic. However, although the objectives were not met, some improvement was noted in test scores.

Private Non-Profit Schools Project

Description and purpose. For the 1979-80 school year, the ESAA, as part of the Basic Grant and Pilot Grant, provided funds to the Catholic Diocese of Dallas. The program was designed to provide remedial assistance in reading and mathematics to students functioning below grade placement. There were 11 grade 4-8 private non-profit (PNP) schools obtaining funds through these ESAA Grants. There were three reading resource teachers and three mathematics resource teachers involved in implementing the supplemental reading and mathematics programs. The remedial assistance was provided in a tutoring program using teacher aides and the resource teachers to improve the reading and mathematics skills of the participating students.

Students in this program were to increase their mathematics and reading skills so that their posttest scores would be higher than projected without this program. Statistically significant differences were expected between pretest and posttest as well as actual posttest and projected posttest scores. Projected posttest scores were obtained by calculating average yearly growth in grade equivalent points and adding this to the pretest score. Students were then expected to obtain a posttest score higher than the projected posttest score. Form 5 of the ITBS was administered in the spring of 1979 as a pretest, and Form 8 was administered in the spring of 1980 as a posttest.

Evaluation results. Most students at all grade levels improved in reading and mathematics achievement as measured by gains from mean pretest scores to mean posttest scores on the Reading Comprehension and Mathematics Tests of the ITBS. Mean posttest scores were within 0.7 grade equivalents of actual grade placement for all grades.

Also, in grades 4, 5, and 8 in reading comprehension and in all grades (grades 4 through 8) in mathematics students' actual posttest scores were statistically significantly higher than projected posttest scores.

Summary and Conclusions

This report presents evaluation information about 13 components of the ESAA programs in the DISD for the 1979-80 school year. Brief summaries about each component are included. For convenience, Table 1 is attached which charts all the information contained in the summaries. It should be noted that a more thorough accounting of these components can be found in the reports listed in the references section.

Pretest to posttest analyses were performed for eight of the components. The remaining five components did not have objectives stated in a form requiring such analyses. Rather, the objectives of these five were more subjectively stated. In six of the eight components for which analyses were done, students had higher posttest scores than pretest scores. These six projects were the Pilot Project, The Private Non-Profit Schools Project, The Special Compensatory Project, and the three Basic Projects of Grades 4-6, Grades 7-8, and the Cultural Crossroads Center. In addition, for all five projects where projected posttest scores were calculated, actual posttest scores were higher than projected posttest scores. For the remaining two projects for which analyses were preformed, i.e., the Bilingual Education Project and the Basic Project in Bilingual Education, the objectives were not met.

Overall, the components were implemented as planned. Departures from the program proposal were minor. The pretest to posttest analyses showed that students were improving in their reading and mathematics skills. However, because of the absence of an appropriate control group it is not known whether such improvement would have occurred without the presence of the ESAA projects.

Table 1

Summary of the Evaluations of the Programs Funded by the Emergency School Aid Act for 1979-80

Project	Subject Area(s) and Schools	Degree of Implementation	Results of Pre-Posttest Analyses	Results of Actual Posttest versus Projected Posttest Analyses
Basic Project Grade 4-6	Mathematics in 27 schools	There was a generally high degree, although some staff positions were vacant.	Statistically significant gains were made.	Actual posttest scores were higher than projected for fifth and sixth grades.
Basic Project Grades 7-8	Mathematics in 17 schools	There was a high level of program implementation.	Statistically significant gains were made.	Actual posttest scores were higher than projected for both grades.
Basic Project, Magnet School Reading Project	Reading in 6 schools	In general, the project was implemented as planned.	Achievement scores were low.	Not Applicable
Basic Project, Bilingual Education	Bilingual Instruction in 12 schools	The degree was generally high, but with some aide positions vacant.	Program objectives were not met.	Not Applicable
Basic Project, Human Relations and Guidance	Counseling Services in 27 schools	In general, the project was implemented as planned.	Not Applicable	Not Applicable
Basic Project, Cultural Crossroads Center	Multi-Cultural Awareness for 10 schools	The degree was generally high with some changes due to budget restrictions.	Higher posttest scores were found for students after their visit to the Center than before their visit and after presentations by project personnel in the 27 participating schools than before the presentations.	Not Applicable

Table 1 (continued)

Project	Subject Area(s) and Schools	Degree of Implementation	Results of Pre-Posttest Analyses	Results of Actual Posttest versus Projected Posttest Analyses
Basic Project, Community Relations	Parental Involvement in 27 schools	Overall, the project was implemented as planned.	Not Applicable	Not Applicable
Basic Project, Special Student Concerns	Alternate Strategies of Discipline for 27 schools	In general, the project was implemented as planned.	Not Applicable	Not Applicable
Basic Project, Administrative Services	Supervision and Facilitation of All ESAA Components	The staff performed their duties in an acceptable manner.	Not Applicable	Not Applicable
Pilot Project	Reading Instruction in 21 schools	Overall, the project was implemented as planned, except for the absence of the community involvement program due to a budget change.	Students gained from pre-to-posttest at all grade levels.	Students in grades 5 through 8 made higher posttest scores than expected. Students in grade 4 did not.
Special Compensatory Project	Mathematics Instruction in 4 schools	Some deviations from the proposal in the materials used were noted.	There were statistically higher posttest scores than pretest scores.	As specified, actual posttest scores for 75% of the students were higher than projected posttest scores.
Bilingual Project	Bilingual Instruction in 17 schools	Several staff positions were vacant, and some deviations from the proposal were noted.	The objectives were not met.	Not Applicable
Private Non-Profit schools Project	Reading Instruction in 11 Diocese schools	Overall, the project was implemented as planned.	There were higher posttest scores than pretest scores at all grades.	There were significantly higher posttest scores at all grades except grade five.

1979-80 ESAA Final Evaluation Reports

Elliott, G. L., and Murray, W. R. *Evaluation of the 1979-80 Emergency School Aid Act (ESAA) Basic Project, Grades 4-6* (EE80-310-31-02), September 1980.

Elliott, G. L., and Murray, W. R. *Evaluation of the 1979-80 Emergency School Aid Act (ESAA) Basic Project, Grade 7-8 Schools* (EE80-311-31-02), September 1980.

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RE80-808-61-30

An Interpretive Analysis of the Results of the 1979-80 Title IV-C Programs

Vickie Peters, Fonda Roberson, and Wayne Murray

During the 1979-80 school year, the State of Texas awarded $611,702 in ESEA Title IV-C funds to the Dallas Independent School District (DISD) for the operation of nine separate projects. Table 1 shows the titles of the projects and the budget for each.

The majority of IV-C projects in 1979-80 were directed toward replacing or supplementing existing curriculum. Survival Academic Skills for the Deaf (SASD) and the Conceptually Oriented Mathematics Program (COMP) were replacement projects. The Computer-Assisted Instructional System for Higher Order Mathematics Skills (CAMS), the Computer-Assisted Instructional System for Higher Order Reading Skills (CARS), the Developing Citizenship Education for Troubled Youth Project, and the Teams-Games-Tournament for Fundamentals of Mathematics (TGT) projects were supplementary. The Utah System Approach to Indivualized Learning (U-SAIL) and the Model Instructional Accountability projects were management systems projects, and the Occupational and Prevocational Training and Instructional Options for Special Education Students (OPTIONS) project was a planning and development project. This report contains a summary of the results of the evaluation of each project.

Survival Academic Skills for the Deaf

The Survival Academic Skills for the Deaf Program was funded to provide students in the Dallas Regional Day School for the Deaf with a

Table 1

1979-80 Title IV-C Projects and Budgets

Project	Budget
Survival Academic Skills for the Deaf	$ 52,009
Conceptually Oriented Mathematics Program	30,309
Computer-Assisted Instructional System for Higher Order Mathematics Skills	93,514
Computer-Assisted Instructional System for Higher Order Reading Skills	94,622
Developing Citizenship Education for Troubled Youth	51,590
Teams-Games-Tournaments for Fundamentals of Mathematics	71,105
Utah Systems Approach to Individualized Learning	73,068
Model Instructional Accountability	85,971
Occupational and Prevocational Training and Instructional Options for Special Education Students	59,514
TOTAL	$611,702

structured language, reading, and mathematics curriculum which emphasized survival skills necessary for productivity in the hearing community. This locally developed curriculum was utilized in conjunction with high-interest and low-reading-level materials drawn from commercially prepared textbooks. These special reading materials were developed by the project staff for implementation in grades 7-12.

The five main objectives for the program were as follows: (a) to develop a mathematics, language, and reading survival skills scope and sequence of student objectives for low-functioning deaf students in grades K-12; (b) to adapt commercially prepared, high-interest, low-level reading and mathematics textbooks for low-functioning deaf students in grades 7-12; (c) to provide low-functioning deaf students with realistic experiences for application of mathematics, language, and reading skills in a simulated home environment and work activity center setting; and (d) to provide deaf students in grades 7-12 with the opportunity to improve language, reading, and mathematics skills through attendance in summer school classes.

All stated objectives were completed by the end of the project year. A mathematics, language, and reading scope and sequence of student objectives was developed, and mathematics textbooks were adapted to the program. Additionally, low-functioning deaf students were provided with realistic experiences for the application of mathematics and reading skills in a simulated home environment and work-activity center setting. Summer school classes were provided for deaf students in grades 7-12.

Responses to a teacher attitude survey were overwhelmingly positive. As a part of the summer school activities, a 47-item curriculum-related instrument was used as a pre- and posttest. The average percentage correct on the pretest was 40%, while the average percentage correct on the posttest was 56%. Although the gain of approximately seven correct items was significant, it was considered reasonable to expect a higher level of accuracy on the posttest than the 56% actually obtained since the test was based directly on material taught in the course.

One possible explanation for the low posttest scores was the wide range of abilities that existed among the participating students. Some students were low achieving, hearing impaired while other students had multiple handicaps, both mental and physical. It is recommended that future testing procedures be designed to accomodate the varying abilities of students in the program.

Conceptually Oriented Mathematics Program (COMP)

The 1979-80 Title IV-C project was planned to systematically implement the COMP, a sequential small-group mathematics program designed for students in grades one through eight. The diagnostic and prescriptive program provided a list of sequential skills to be mastered in each of the basic skills areas for an individualized approach to mathematics instruction.

The objectives of COMP were (a) to conduct a needs assessment to determine implementation sites for the program, (b) to design implementation procedures, (c) to disseminate information regarding COMP to appropriate audiences within the District, (d) to reproduce and disseminate materials to implementation sites, (e) to implement and monitor the program, and (f) to implement formative and summative evaluations. Implementation of COMP was delayed approximately four months. The needs assessment failed to take into account that a

District-required mathematics management system, the Mathematics Baseline, was already established at Maynard Jackson and Whitney Young.

Although placement tests were administered and textbooks were delivered in September, classes were not scheduled to conform to COMP requirements and COMP was not used because of building-level resistance to the simultaneous use of the two management systems. District administrators failed to intervene until January when the requirement to use the Baseline was waived. COMP was fully implemented approximately four months behind schedule. Classroom observations confirmed that the program was in use in the classrooms. On an attitude survey, teachers and administrators at the two schools generally rated the program as average, but the majority were negative about using it again. Because of the late implementation, no achievement data comparisons were made.

Although all objectives of the project were met, the mid-January implementation was too late to allow for the COMP to become fully accepted by teachers during the project year. It is recommended that the feasibility of displacing an existing curriculum be carefully investigated before proposing the implementation of a new program.

Computer-Assisted Instructional System for Higher Order Mathematics Skills

The Supplemental Computer-Assisted Instructional System for Higher Order Mathematics Skills (CAMS) Program involved the development and field testing of a supplemental instructional program in mathematics for fourth- through sixth-grade students. The project further provided a method of improving upon skills in which the students were deficient by relating these skills to existing classroom materials.

The three primary objectives for the project were as follows: (a) to develop computer-based instructional strategies to facilitate problem-solving skills, (b) to develop an integrated individualized mathematics problem-solving instructional system, and (c) to coordinate materials in use within the District with identified problem-solving skills.

Frequent monitoring by evaluation staff indicated that all objectives were completed as specified. Computer-based instructional strategies were developed; an integrated, individualized mathematics problem-solving instructional system was developed; and materials within the District were coordinated with identified problem-solving skills. Field testing was delayed until the second year of the project with approval by the Texas Education Agency.

Computer-Assisted Instructional System for Higher Order Reading Skills

The Computer-Assisted Instructional System for Higher Order Reading Skills (CARS) Program involved the development of a computer-assisted reading instructional program for fourth- through sixth-grade students. The program concentrated on high-interest, relevant instruction and attempted to improve student inferential and interpretive strategies.

The eight primary objectives for the program were as follows: (a) to define and delineate higher-order reading comprehension skills, (b) to develop a learning hierarchy using a systems approach, (c) to select appropriate hardware, (d) to develop individualized learning modules, (e) to design and develop individualized learning programs, (f) to develop a teacher's manual, and (g) to design and develop pretests and posttests.

Frequent monitoring by evaluation staff indicated that all objectives were completed as specified. Reading comprehension skills were defined and delineated and a learning hierarchy was defined using a systems approach. Individualized learning modules and learning programs were developed in addition to pretests and posttests. The appropriate hardware was selected and work began on the teacher's manual.

Developing Citizenship Education for Troubled Youth

First-year activities of the Developing Citizenship Education for Troubled Youth Project were aimed at developing and field testing a citizenship curriculum model. The primary purpose of the curriculum was to introduce effective citizenship habits to those students in grades seven and eight identified as status offenders or who had been suspended and/or referred for the District's due process Third Party Hearings. The curriculum was also used with "regular" students in grades four through six to introduce citizenship habits in order to prevent future disruptive behavior. The content of the curriculum was directed toward introducing constructive decision-making and problem-solving skills, improved communication, and increased self-responsibility.

The major objectives of the project were (a) to develop a citizenship curriculum oriented toward decision making and problem solving, communication and social interaction, and self-responsibility; (b) to design the content of the citizenship curriculum; (c) to develop a plan to disseminate the curriculum to other elementary and middle schools in the District; (d) to field test the model with students in the Options Center Program (serving middle school students identified as status offenders) and Mount Saint Michael School for Girls (a private non-profit school); (e) to field test the curriculum model with a group of "regular" students at a District fourth- through sixth-grade school; and (f) to identify, order, and catalog available literature and reference materials related to citizenship education.

The Citizenship Curriculum was developed on three levels corresponding to the three levels of instruction used in the Options Center Program. All three levels were field tested as they were developed at the Options Centers and Mount Saint Michael School. The Level I curriculum, aimed at making students aware of citizenship concepts, was used in a field test at five fourth- through sixth-grade schools rather than in one school as proposed. Classroom observations indicated that the majority of students enthusiastically participated in the use of the curriculum. Options Center teachers varied activities efficiently but the intermediate school teachers tended not to vary from worksheets and class discussions. The poor classroom management skills of one intermediate teacher interfered with the use of the curriculum in her classroom. Results of a teacher attitude survey concerning the curriculum and its use were generally very positive. Principals of the intermediate field test schools were positive about using the program again. No significant gains were found on pre/posttesting using instruments jointly developed by project staff and evaluators for the field test.

All objectives of the project were attained as proposed. High pretest scores on curriculum tests indicate that students participating in the intermediate field test may already be aware of the concepts presented. Student population characteristics of the schools involved supported this conclusion. Greater variety in ethnicity and socioeconomic status of the school populations would possibly have provided more useful information. Intensive staff development to familiarize teachers with the curriculum is recommended to promote more imaginative variation of activities.

Teams-Games-Tournament for Fundamentals of Mathematics Program

The goal of the first-year project was to adopt Teams-Games-Tournament (TGT) strategies and materials for use in Fundamentals of Mathematics (FOM) II classes. The program incorporated teacher instruction, intrateam cooperation, and interteam competition.

The objectives of the TGT project were (a) to adapt TGT materials to the objectives of the FOM course for grades 9 through 12; (b) to provide in-service training for participating teachers and administrators; (c) to provide assistance for local building implementation; and (d) to improve student performance in FOM II classes.

Implementation of the TGT program was hampered in several areas as a result of two resource teacher vacancies. Six teachers were employed on an extended-day basis from January through June to adapt TGT materials to the Dallas Mathematics Baseline and to aid in building level implementation. An additional ten teachers worked during June. The adaptation of materials was extended from FOM II objectives to include FOM I, Algebra I, Algebra II, and one unit of geometry. Most participating teachers worked through a 14-hour practicum on TGT as training. Because of delayed availability of materials, extensive use of TGT was not evident in classrooms until April. Fourteen District teachers reported using TGT with approximately 804 students, 656 of whom were enrolled in FOM classes and 148 in Algebra classes. One teacher from Winston School, the only participating private school, used TGT with 28 students. Because of the limited time of full implementation of TGT, no comparisons of student achievement data were made. Results of student and teacher attitude surveys were generally favorable.

Considerable variation from the originally proposed objectives was evident. Adaptation of materials and classroom implementation were delayed because of the staffing problem. An amendment in the fall of 1979 shifted budgetary emphasis from implementation to materials development. The 15 teachers who implemented TGT in the classroom during the project year represented only 63% of the proposed 24 teachers and 38% of the 40 teachers involved in midyear staff development. The use of achievement data was deleted from the project because of limited implementation.

Utah Systems Approach to Individualized Learning (U-SAIL)

Project U-SAIL was a management system for the individualization and improvement of mathematics instruction. It was adapted to the Dallas Mathematics Baseline to provide a framework for training teachers and administrators. The system also emphasized concept mastery of the Dallas Independent School District's Baseline Mathematics objectives.

The objectives of U-SAIL were (a) to adapt components of the Utah SAIL to DISD's Mathematics Baseline Curriculum, (b) to conduct initial in-service training for principals and teachers, (c) to implement the

U-SAIL in classrooms, (d) to provide ongoing staff development for project teachers, and (e) to disseminate information about U-SAIL to others.

Implementation of the U-SAIL project was hampered because of staffing problems resulting from a shortage of mathematics teachers. Twelve resource teachers and facilitators were hired on an extended-day basis. The adaptation of U-SAIL to the Mathematics Baseline was completed behind schedule. Participating teachers attended introductory staff development and a 14-hour practicum.scheduled throughout the year and completed in April. Delivery of materials to participating teachers was behind schedule but completed. A total of 66 teachers from 22 elementary schools participated in the U-SAIL Program, and all teachers in a random sample (N=16) chosen by the evaluators had the materials although only two-thirds had organized and were using them. The majority of teachers responded favorably to items concerning the program, and several indicated they would use it more extensively the next year because more time was needed to organize materials.

The major objectives of the project were accomplished by the end of the project year but considerable slippage in the schedule was noted. No achievement data comparisons were made because of the short time the system was in use. Most participating teachers anticipated extensive use of the system in the coming year.

Model Accountability System

In its second year, the Model Accountability System continued the previous year's commitment to develop a model public school management information system for setting student performance goals, monitoring classroom instructional conditions, providing continuous reporting of student achievement on criterion-referenced and standardized tests, and specifying techniques for remediation of classroom weaknesses.

Specific objectives for 1979-80 were (a) to revise the existing system and expand it by initiating the addition of reading to the instructional monitoring and goal-setting components developed for mathematics in 1978-79 and by developing a system for computer-generated, criterion-referenced achievement tests for mathematics; (b) to field test the accountability system in mathematics and possibly reading across grades one through six; (c) to verify and document components of the system; and (d) to pilot an instructional renewal system.

The first objective concerned revision of existing components and expansion by developing computer-generated criterion-referenced tests and a reading component. Two areas of the goal setting component for mathematics were complete. A learning hierarchy of skills and related Baseline objectives and a system for estimating the time necessary to master objectives were established. The key process of predicting standardized test achievement from Baseline objective mastery was operative using hand-matched objectives and test items. Rasch test equating procedures were in progress to refine the method. The instructional monitoring component included instruments for collecting classroom data concerning instructional methods and student progress and the computer software incorporating this data to report time estimates for student mastery of Baseline objectives. The achievement monitoring component included computer software to provide school level information concerning student progress through the curriculum (from the instructional monitoring component) combined with time allocation data (from the goal setting component) to project student progress for the school year. The validity of information obtained from the achievement monitoring component was dependent on the accuracy of the procedure relating standardized test achievement to Baselines mastery, the process under refinement in the goal setting component. The system for developing computer generated criterion-referenced tests was complete but was not pilot tested as proposed. The reading component was not developed.

The second objective concerned field testing of the Model Accountability System in mathematics and reading. Although some sections of the system operated with data collected from the field test site, the completed mathematics system, with all components operative, was not field tested. Development of the reading component did not reach a field test stage.

The third objective, documenting major components of the system, was complete for developed components. The fourth objective, piloting the renewal system, was completed on schedule as proposed. Responses to an attitude survey administered to teachers participating in the training program for the renewal system were generally positive. Written comments suggested that the training helped teachers identify situations for positive reinforcement of students and provided them with alternatives for coping with student disciplinary problems.

The major effort associated with each proposed objective was accomplished but some variance was noted. Although each component of the system was operative, the system with all components operating together, was not field tested. The criterion-referenced tests were not pilot tested. Little progress was made on the addition of a reading component and, because of ambiguous language used in a revision to the proposal concerning the component, what was to be accomplished was not clear. It is recommended that project staff clearly define their intentions regarding reading.

Occupational and Prevocational Training and Instructional Options for Special Education Students (OPTIONS)

Project Options' third and final year continued the expansion of prevocational and occupational training opportunities for Special Education students by the compilation and dissemination of materials and information sources and the coordination of existing activities to Life Centered Career Education: A Competency Based Approach, edited by Donn Brolin.

Objectives for the project included (a) implementing, updating, and evaluating components of the five-year plan; (b) planning for expansion; (c) making additional alternative placement recommendations; (d) developing and disseminating an adaptation of the Donn Brolin curriculum; and (e) training a selected group of teachers to use the curriculum and publishing a newsletter.

Activities associated with the first objective had been completed and included the formation of a task force combining community and school members, the development of Placement Options Charts, and a review of student demographic data. Activities for objective two, updating Vocational Education for the Handicapped staffing procedures and surveying appraisal team members regarding the vocational appraisal system, had been rescheduled. The updated staffing procedures lacked final approval by the Texas Education Agency and the District. The survey was scheduled for completion in August/September staff development. All activities associated with the third objective were complete. Products were updated manpower projections, recommendations for additional special education units, and a summary of results from a vocational follow-up study. The fourth objective concerning the development and dissemination of an adaptation of the Brolin curriculum was complete. The four-volume Career Education Learning Activities was printed and disseminated in June to selected teachers. To complete objective five, a training workshop attended by 25 special education teachers was held June 2 through 6 to instruct teachers in the use of the Brolin curriculum and career education. A pre/post cognitive instrument administered to teachers at the workshop showed a significant increase in scores, but the final mean score (approximately 52 of 100 possible points) was low. Responses to an attitude survey concerning the quality of the Brolin curriculum and of the workshop were overwhelmingly positive. Five newsletters were published during the project year and were disseminated to special education teachers and parents of special education students.

Products of the project such as an updated manpower study, demographic chart, and an updated vocational materials center catalog will serve an ongoing need in the District. The low posttest score after the workshop might indicate that teachers were not well enough acquainted with the Brolin curriculum to use it in the classroom. This is of special concern because the teachers attending the workshop were chosen as representatives from certain student need areas and geographic locations so that they could spread the use of the curriculum to other teachers. More intensive staff development is recommended.

Conclusions and Recommendations

Results of the evaluations of the 1979-80 Title IV-C projects indicate that, generally, management of the projects was effective within the limitations set by the proposals. In most instances where project implementation fell behind schedule or could not be completed as originally proposed, sufficient planning during the proposal stage might have prevented subsequent problems. In particular, the unavailability of staff and the incompatibility of existing programs at implementation sites were obstacles in the IV-C projects that might have been predicted. Additionally, clearly stated objectives are vital to common interpretation of project results.

All of the Title IV-C projects produced or procured instructional products which will be useful beyond the project year.

Summary of the Evaluations of the Programs Funded by Title IV-C for 1979-80

Project	Description	Degree of Implementation	Products/Results
Survival Academic Skills for the Deaf	Development and field testing of life skills curriculum for low-functioning deaf students in grades K-12.	Project implemented as planned.	Life skills curriculum developed. Positive teacher attitudes toward curriculum. Significant gain from pre-to posttest on curriculum-related instrument.
Conceptually Oriented Mathematics	Adopted project for educationally disadvantaged students in grades 4-6 at two schools.	Project implemented four months behind schedule.	No achievement data comparisons because of late implementation. Negative teacher attitudes toward continued use.
Computer-Assisted Instructional System for Higher Order Mathematics Skills	Development of supplemental instructional program in mathematics.	Project implemented as planned.	Individualized problem solving system developed.
Computer-Assisted Instructional System for Higher Order Reading Skills	Development of supplemental instructional program in reading.	Project implemented as planned.	Individualized learning program developed.
Developing Citizenship Education for Troubled Youth	Development and field testing of citizenship curriculum model. Options Center and grades 4-6 students used in field test.	Project implemented as planned.	Citizenship curriculum developed. No Significant gains from pre-to posttest using curriculum-related instrument. Favorable teacher attitudes toward curriculum.

Table 2 (Cont'd.)

Project	Description	Degree of Implementation	Products/Results
Teams-Games-Tournament for Fundamentals of Mathematics.	Adaptation and implementation of supplementary mathematics program.	Implemented six months behind schedule.	Positive teacher and student attitudes. No achievement data comparisons because of late implementation.
Utah System Approach to Individualized Learning.	Adaptation and implementation of management system.	Implemented six months behind schedule.	Positive teacher attitudes. No achievement data comparisons because of late implementation.
Model Accountability System.	Development of model public school management information system.	Implemented with some variance from plan.	Components of management system developed. Positive teacher attitudes toward training component.
Occupational and Prevocational Training and Instructional Options for Special Education Students.	Planning and development of training opportunities for Special Education students.	Implemented with minor variance.	Updated special education materials produced. Career Education Learning Activities developed. Teacher attitudes toward curriculum favorable. Significant pre - posttest gains on cognitive instrument used at teacher training.

1979-80 Title IV-C Final Evaluation Reports

Peters, V. L., Roberson, F., and Murray, W. R.. Evaluation of the 1979-80 Title IV-C Conceptually Oriented Mathematics Program (COMP) (T480-324-31-02), September 1980.

Peters, V. L., Roberson, F., and Murray, W. R. Evaluation of the 1979-80 Title IV-C Model Accountability System (T480-331-31-05), September 1980.

Peters, V. L., Roberson, F., and Murray, W. R. Evaluation of the 1979-80 Title IV-C Occupational and Prevocational Training and Instructional Options for Special Education Students (Project OPTIONS) (T480-334-31-08), September 1980.

Peters, V. L., Roberson, F., and Murray, W. R. Evaluation of the 1979-80 Title IV-C Teams-Games-Tournament for Fundamentals of Mathematics Program (T480-323-31-02), September 1980.

Roberson, F., Peters, V., and Murray, W. R. Evaluation of the 1979-80 Title IV-C Developing Citizenship Education for Troubled Youth Program (T480-321-31-05), September 1980.

Roberson, F., Peters V., and Murray, W. R. Evaluation of the Title IV-C Computer-Assisted Instructional System for Higher Order Mathematics Skills, 1979-80 (T480-326-31-01), September 1980.

Roberson, F., Peters, V., and Murray, W. R. Evaluation of the Title IV-C Computer-Assisted Instructional System for Higher Order Reading Skills, 1979-80 (T480-325-31-01), September 1980.

Roberson, F., Peters, V., and Murray, W. R. Evaluation of the Title IV-C Survival Academic Skills for the Deaf Program, 1979-80 (T480-327-31-20), September 1980.

Roberson, F., Peters, V., and Murray, W. R. Evaluation of the Title IV-C Utah System Approach to Individualized Learning Program, 1979-80 (T480-322-31-02), September 1980.

An Interpretive Analysis of the Results of the Implementation of the 1979-80 Title-I Programs

R. A. Zepeda

In 1979-80 the Dallas Independent School District (DISD) spent funds authorized by Title-I of the Elementary and Secondary Education Act on compensatory, supplementary programs for economically and educationally deprived children in grades kindergarten through six. The major thrust of the DISD Title-I program was instructional, with concentration in the areas of reading and mathematics. In the five subdistricts of the DISD, Title-I programs in 1979-80 served 9,398 eligible mathematics students and 9,337 eligible reading students. Of students in either the reading program or the mathematics program, 66.8% were Black, 27.9% were Hispanic, 3.9% were White, 1.2% were Asian, and 0.3% were American Indian. Supportive components of the Title-I program included Community Involvement and Staff Development. The entire Title-I program involved several components operating in 56 DISD schools, 7 non-public institutions, and 11 schools of the Diocese of Dallas. All Title-I components concentrated their efforts on assisting the instructional components to meet the identified needs of children eligible for Title-I instructional services. As this report illustrates, the success of the supplemental instructional programs and the support programs varied greatly from a low implementation to complete attainment of proposed objectives.

Program management responsible for Title-I programs made several changes based upon interim reports during the 1979-80 school year. Also, evaluators cooperated with project managers as they designed many modifications to be employed in the 1980-81 Title-I program. Again Title-I program managers and other administrators redesigned the Title-I programs to retain and capitalize upon the successful aspects of past efforts.

Description of DISD Instructional Programs

Reading

The Title-I reading program was designed to improve the language and reading skills of educationally disadvantaged kindergarten through sixth-grade students on 56 eligible campuses by providing an appropriate staff as specified in the Title-I application, a minimum 20-minute instructional period, and a means of communication between the Minimum Foundation Program (MFP) teacher and the Title-I staff. Materials and personnel were provided to each school. Students who scored at or below the 20th percentile on nationally-normed standardized achievement tests were eligible for the program. An instructional resource teacher, a reading teacher, and/or reading teacher aide were to provide 11 or 12 instructional periods per day with classes ranging in size from 8 to 15 students. The instructional program did not employ any particular reading materials as a core program.

Mathematics

The Title-I mathematics program served educationally disadvantaged kindergarten through sixth-grade students on 56 eligible campuses. Students who scored at or below the 20th percentile on nationally-normed standardized achievement tests were eligible for the program. Students were to receive at least 20 minutes of supplementary instruction daily insmall groups. Instructional resource teachers, mathematics teachers and paraprofessionals were to provide instruction to 11 or 12 groups daily. The 13 highest priority campuses also received computer-assisted instruction (CAI). Title-I instruction was to be correlated with the MFP program. A variety of instructional materials was available on each campus for use with eligible students. The intent of the Title-I Mathematics Program was to improve the mathematics skills of participating students.

Migrant Tutoring

The Title-I Migrant Tutoring Program (MTP) was designed and implemented in 26 schools to address the needs of migrant students by means of tutorial assistance in oral language, language arts and reading. The MTP concentrated supplementary reading instruction on the identified migrant students who had below-average reading performances evidenced by achievement test scores. The tutors were bilingual paraprofessionals who were provided with some pre-service preparation. Tutors in this program, in collaboration with principals, resource teachers and classroom teachers, provided 20 minutes of tutoring daily in the areas of oral language development, language arts and reading using Spanish and/or English according to each student's need. Those migrant students whose test scores were at or below the 25th percentile were given priority attention. Materials for this program included supplementary materials, Bilingual Program materials, and DISD baseline curriculum materials.

Summer Program

Elementary students who were eligible for Title-I services during the regular academic year were taught reading, mathematics, and creative arts at 1 of 9 summer schools. Also, all students had regular sessions with a media specialist to encourage them to read for pleasure and to use the resources of the media center. Students from the 56 Title-I schools for 1979-80 participated in the program on a voluntary basis. Students attended three hours of classes each day for six weeks. Classes varied in length from 30 to 90 minutes. Instruction was in small groups of 6 to 13 in reading and mathematics, 10 to 18 in media, and 12 to 25 in creative arts. Students were to sustain and/or extend reading and mathematics achievement gains made during the regular school year.

Description of Diocese of Dallas Instructional Programs

Regular Academic Year

The Title-I program in the Diocese of Dallas provided supplementary reading and mathematics instruction in three components: (a) eight regular non-public schools and Notre Dame Special/Vocational schools, (b) Mt. St. Michael, and (c) St. Joseph Center. Eligible students at the regular schools received daily instruction individually or in small groups in the areas of reading and mathematics. Students in grades one through six were deemed eligible according to the same criteria used by the DISD. Students residing in Dallas and assigned to an institution were eligible for supplemental instruction geared towards individual needs. These needs included reading, mathematics, and basic life skills. All Title-I students participated in counseling sessions during the school year.

Summer Program

A summer enrichment program was provided at three campuses in the Diocese of Dallas. Participants from grades one through six received daily reading and mathematics instruction and related creative arts and library skills activities. Students from the Proyecto school, a non-graded school for limited- or non-English-speaking students, received instruction in the English language. Entrance criteria and academic objectives were identical to the DISD summer program.

Description of Programs at Institutions for the Neglected or Delinquent

Buckner Baptist Children's Home

Elementary students were taught supplementary reading and mathematics at Edna Rowe Elementary School by the full-time head teacher and the resource teacher. Students were pulled from their classes to a resource room in small groups of 2 to 5. Title-I periods lasted 30 minutes. Secondary students were taught reading and mathematics after school on the Buckner campus by a full-time home/school resource teacher, a half-time aide, and 35 volunteer tutors. Title-I classes were conducted in small groups of 10 to 12 students and were 45 to 60 minutes in length. A summer school program was held for elementary students.

Dallas County Boys Home

A full-time teacher was hired in January of 1980. Students in grades 7 through 10 were pulled from regular classes at the on-campus school. Periods were 30 minutes in length. Reading and mathematics were taught to small groups of one to five students in a resource area at the school. The teacher planned to work the first six weeks of summer to use funds not spent during the fall of 1979.

Dallas County Child Welfare

Tutors worked 6 or 12 hours per week teaching reading and mathematics to students in their foster homes. Students were usually tutored individually for one or two hours each week. The grade levels of students were 1 through 9 and 12. The coordinator/supervisor worked 20 hours per week performing such duties as obtaining and training tutors, and coordinating the selection of students and matching them with tutors. A summer program was held in June of 1980.

Dallas County Juvenile Detention Center

A full-time tutor was hired in January of 1980. Students in grades 3 through 12 were pulled from regular classes at the in-house school. Periods were 45 minutes in length. Reading and mathematics were taught to small groups of six students in a very small resource room.

Dallas House

Students in grades 8 through 10 were taught reading and mathematics at the facility during the morning hours. The tutor worked 20 hours per week. Instruction was in small groups of one to six students. The tutor was absent on leave from November of 1979 until February of 1980. To use the funds not spent during this time, she worked the same hours during the first six weeks of summer.

Juliette Fowler Home

The tutor obtained 18 volunteer tutors who instructed students in reading and mathematics for one hour each evening. Students were in grades 7 through 12. The tutor spent most of her 10 weekly hours coordinating the programs and visiting students' school teachers. The tutor resigned on December 20, 1979, and a replacement was not found the remainder of the school year.

Rotary Townhouse, Inc.

The tutor worked four hours per week at the facility instructing students in grades 7 through 10 in reading and mathematics. Instruction occurred individually or in small groups for periods of about 30 minutes.

Description of Support Components

Staff Development

The Staff Development Program provided learning activities for all personnel involved in Title-I. These took place at the Dunbar Teacher Education Center and 12 DISD schools.

Instructional personnel, principals of Title-I schools, Community Involvement personnel, and personnel from Research and Evaluation, Staff Development, the Learning Division, and Special Programs attended both joint workshops on general program concerns and separate workshops for personnel from each component. Additional workshops for new Title-I teachers and substitutes and demonstration sessions for classroom teachers from Title-I schools were provided. Other services included a resource library, a newsletter, and a creative ideas book for instructors.

Community Involvement

The Title-I Community Involvement Program (CIP) was designed to assist parents of Title-I students in becoming involved in the learning process of their children. It was assumed that increased involvement of parents and other community members in the Title-I program would support the educational progress of students and minimize the potential barriers to that progress. The goals of the CIP were attained through three major areas of activity: Parent Advisory Councils (PACs), student referrals, and parent training.

Results

DISD Reading

The local program objectives for grades one through six specified a percentage of students who would gain certain numbers of percentile points. The kindergarten objective specified a distribution of posttest scores since no pretest was administered in this grade. The objectives were met in kindergarten and grades one, four, five, and six throughout the District and in grade three in the Northeast Subdistrict. Grades two and three did not meet local objectives on the Reading Comprehension Test of the ITBS. The impact of the Title-I program in grades two through six was also assessed using one of the federally mandated Title-I evaluation models. Model C, the special regression analysis, showed the biggest impact to have occurred at second and fifth grades, smaller impacts at grades three and four, and no impact at grade six.

The median percentiles for Title-I cohorts in grades two through six are shown in Table 1. While it was very reasonable to state and measure

Table 1

ITBS Reading Comprehension
Median National Percentiles

	Grade in 1979-80				
	2	3	4	5	6
N	1085	1463	815	1113	1267
Spring 1979	15.6	7.2	5.7	4.3	5.7
Spring 1980	14.7	9.5	6.7	8.4	7.9

objectives in terms of a percentile point gain, it was not possible to reach firm conclusions about the attainment of the objectives. The reason for this is found in the change from one test to another (MRT to ITBS) or from one form of a test to a newer form (ITBS Form 5 to ITBS Form 7/8). The percentiles from Form 5 were converted to conform to the Form 7/8 norms. However, the real effect of this conversion is unknown. The reader is cautioned to interpret these results with the above limitations in mind.

DISD Mathematics

Program implementation was delayed in many schools by shortages of teachers. In late September, 41 of the proposed 99 mathematics teacher positions were vacant; substitute teachers were not hired before mid-December. Observation of the program showed that class sizes were appropriate and instructional time generally equalled or exceeded 20 minutes. The CAI program began on time at Maynard Jackson; at the other 12 sites, implementation was delayed until early 1980 due to the late arrival of the microcomputers.

The District achievement objectives appeared to be fully met in all grades, except second. Results varied by subdistrict. The impact of the Title-I program in grades two through six was also assessed using one of the federally mandated Title-I evaluation models. Model C, the special regression analysis, showed the biggest impact to have occurred at fourth grade, smaller impacts at grades three and five and no impact at grades two and six.

The median percentiles for Title-I cohorts in grades two through six are given in Table 2. Although program objectives were generally attained, the change to the new form of the ITBS makes it impossible to reach firm conclusions about the impact on student achievement for the same reasons cited before for DISD reading results.

Table 2

ITBS Mathematics
Median National Percentiles

	Grade in 1979-80				
	2	3	4	5	6
N	1093	1269	947	1256	1336
Spring 1979	12.6	6.4	4.7	2.2	2.2
Spring 1980	13.6	11.1	7.1	6.5	6.8

Migrant Tutoring

Moderate attainment of the instructional objectives was evidenced. Of the 24 students in grades one through five who took the Inter-American Prueba de Habilidad General (Spanish version), 38% achieved a 20% increase in raw score from fall to spring; 42% made an increase of 1-19%. Migrant students in grades three, five and six demonstrated educational achievement on the ITBS Reading Comprehension Test. Gains of .9, .9 and .8 grade-equivalent units, respectively, were calculated for these three grades.

The lack of two Migrant resource teachers weakened lines of communication between MTP personnel and local school personnel at the schools where these vacancies existed. Principals and teachers were generally in support of the MTP. Principals appeared to have become better acquainted with migrant eligibility criteria, program guidelines and implementation than had been the case in the past. Very little staff development was provided during 1979-80 to the paraprofessional tutors.

Recruitment/community aides visited every home of the identified migrant students. Approximately 2,000 home visits were made by these aides. Approximately 130 parents participated in Migrant Program coordinated activities. These recruitment/community aides transmitted records to the ESC terminal site as specified.

DISD Summer School

The program's primary objective, for each student to sustain two baseline reading and mathematics objectives, and the secondary objectives, to master two new objectives in each area and to master in part two more objectives in each area, were achieved to a moderately high degree. In general, program plans were implemented according to the proposal, although there was variation among schools in the manner and degree of implementation. In reading, the median number of objectives mastered was .63, the median number of objectives partially mastered was

1.46, and the median number of objectives sustained was 1.89. In mathematics, the median number of objectives mastered was .97, the median number of objectives partially mastered was 1.42, and the median number of objectives sustained was 1.89.

Diocese of Dallas Regular Program

The Title-I staff efficiently implemented the program as proposed. Kindergarten test scores were higher than in 1978-79. Achievement gains appeared to have been made by students in grades one through six. A portion of the students scored above the 50th percentile on the posttest. The staff at the Diocese institutions reported progress was made to meet the objectives. No test data were available from the institutions because of the irregular nature of the test schedule and the variable lengths of residence at those sites.

Partial attainment of performance objectives was achieved at every grade. Teachers and students appeared to be enthusiastic about the program in general. The Title-I staff, principals and regular classroom teachers reported that the program brought positive outcomes to their campuses.

Diocese of Dallas Summer Program

Title-I personnel efficiently implemented the program as proposed. The achievement objectives were identical to those for the DISD summer program. Data indicated that eligible Title-I students did sustain nearly 2 objectives, as specified in reading and mathematics. Across schools, mean gain of new objectives mastered was nearly 1 objective in each area. Not all students completely mastered the intended objectives, but many partially mastered the intended objectives. Some additional objectives, not specified by the sending teacher, were mastered and more additional objectives were partially mastered. As a whole, students gained mastery of 1.5 objectives in mathematics and approximately 1 objective in reading.

Some students mastered up to 7 new objectives. Teachers were enthusiastic about the program and felt it was beneficial to the students. Since some teachers had difficulty with the complicated reporting form, some students may have mastered objectives that went unreported.

Buckner Baptist Children's Home

In reading, 43% of the students tested made gains of 10 percentile points or more. In mathematics, 51% of the students tested made such gains. However, the anticipated percentages of students with losses or no gain also exceeded those specified in the proposal in both subjects, with 29% of the students tested in reading and 22% of the students tested in mathematics either losing or making no gain. The Title-I program at Buckner was implemented as planned, except that after-school sessions for secondary students were not well attended.

In general, the program's objectives were achieved to a moderate degree. Program plans were implemented faithfully, and the staff was organized and diligent.

Dallas County Boys Home

There were 79% of the students tested in reading who gained 1.1 months per month of instruction or more. In mathematics, 43% of the students tested gained .7 months per month of instruction or more. In general, the program's objectives were met to a high degree in reading and to a moderate degree in mathematics.

Overall, the Title-I program was implemented as planned, except that student selection for the programs was based more on the subjective judgments of the regular classroom teachers than on achievement test scores. Also, students were not always sent to Title-I classes by the regular classroom teachers. The program could become an excellent example of a Title-I program at an institution for delinquent youth if problems regarding student selection and attendance are corrected.

Dallas County Child Welfare

Overall, the Title-I program was implemented in an organized manner. Exceptions were that the amount of contact between tutors and students' regular school teachers was slight, and that the program's large supply of materials was only moderately used. The program's achievement objectives were not met. Gains were about the same in reading and mathematics. The program's low degree of impact as measured by these achievement scores is puzzling since this program was implemented in an organized fashion, and since tutoring was in most cases individually administered.

Dallas County Juvenile Detention Center

In general, the program was organized and implemented to a moderate degree. Several discrepancies existed between the program and the proposal. These included the fact that the tutor taught five rather than eight classes each day, and that the attitude rating scales were completed by the regular classroom teachers without input from the Title-I tutor.

Rating forms were obtained for 167 of the 238 students served. Of these 167, 161 had initial ratings only, and thus no comparison over time could be made. The major problem obtaining scores was that most students were at the center only a very brief time. The lack of ratings made it impossible to evaluate the program's objective. In institutions such as this where the length of residence is brief, it may not be possible to obtain meaningful objective data regarding student progress. Also, several areas mentioned above needed revision to bring the program into accordance with the proposal.

Dallas House

The program's objectives were attained to a very high degree in both subjects. In reading, 92% of the students tested gained 5 percentage points or more, and 8% gained 1 to 2 percentage points. In mathematics, 83% of the students tested gained 5 percentage points or more, and 17% gained 1 to 2 percentage points.

The program was implemented in a moderately disorganized manner. The length of periods varied, and did not last one hour as specified in the proposal. Also, a daily schedule for seeing students was not devised. The high turnover rate at the facility, coupled with the absence of tutoring during the three months the Title-I tutor was absent on leave, imply the objective scores used to measure program impact should be interpreted conservatively.

Juliette Fowler Home

In reading, 40% of the students tested gained 1.6 months or more per month of instruction. In mathematics, 20% of the students tested gained 1.6 months or more per month of instruction. In general, the program's objectives were achieved to a moderately high degree in both subjects, even though the program was moderately disorganized. The Title-I tutor was observed to spend very little time instructing students. It should be mentioned that five students' scores, which is the number available for data analysis, is generally considered an inadequate number on which to base an objective evaluation of a program's impact.

Rotary Townhouse, Inc.

In reading, 18% of the students tested gained 1.1 months or more per month of instruction and 9% of the students tested gained .8 to 1 month per month of instruction. In mathematics, 15% of the students tested gained 1.1 months or more per month of instruction and 9% of the students tested gained .8 to 1 month per month of instruction. In general, the objectives were not attained in reading and were moderately attained in mathematics. This is curious since the program was observed to be well implemented throughout the year. It is also true that in cases like this where the number of scores is low, and where the turnover rate is high, that objective scores used to measure program impact may in fact be erroneous. Overall, the program functioned in an organized and efficient manner.

Staff Development

The program objectives were attained. In each case, the number of hours actually provided for each group of Title-I personnel equalled or exceeded the minimum specified in the proposal.

The rate of attendance at staff development sessions was reasonably high. Title-I instructional personnel from all 56 DISD schools, from 9 of 11 Diocese schools, and from 3 of 7 institutions participated. Principals or administrative representatives from all 56 DISD schools attended either one or both of the workshops provided for them. The rate of attendance by CIP personnel was quite high. Attendance by Learning Division, Research and Evaluation, Staff Development, and Special Programs was somewhat lower than the other components. Classroom teachers from 23 DISD and 3 Diocese Title-I schools attended the demonstration sessions. Parents of Title-I children attended some of the summer workshops and demonstration sessions. Participants typically reported that the workshops provided them with sufficient information and that they found the information potentially useful and applicable in their school situations.

The full attainment of program objectives, the satisfactory rate of attendance, and the positive feedback from participants indicated a highly successful implementation of the Title-I Staff Development Program. Program planning and administration seemed organized to a high degree.

Community Involvement

A high incidence of attainment of the objectives of the CIP was evidenced during the project year. All parent ombudsmen were instrumental in the establishment and maintenance of a PAC on 54 Title-I campuses. During the 1979-80 school year parent ombudsmen conducted 447 PAC meetings, with 6,525 parents attending. Title-I workshops totaled 84, with 1,289 parents in attendance. Parent education workshops numbered 116, with 2,232 parents in attendance. Parental participation in workshops showed a marked increase over 1978-79. District-wide referrals to the CIP staff totaled 13,510. Of those referrals, 7,073 (52%) were attendance-related. Home visits totaled 37,828, for an average of 2.8 home visits for each referral made. A study of the attendance-related referrals indicated a slight improvement of student attendance rates from 1978-79 to 1979-80.

Conclusion

The main emphasis of 1979-80 Title-I programs was on instruction for underachieving students from low-income neighborhoods. The effects of the instructional programs during the 1979-80 school year were clouded by measurement problems mentioned in the body of the report. Probably the best assessment of the implementation of Title-I instructional programs is to be gained from the repeated, systematic, first-hand information gathered by the Title-I evaluation staff, exemplified by the over 1,000 classroom observations made in DISD Title-I mathematics and reading classes during the regular school year.

DISD Title-I reading and mathematics instruction were quite different from one another, although both programs met many of their achievement objectives. The reading program was well implemented and well staffed. The mathematics program, by contrast, had an unacceptably large number of professional vacancies at the beginning of the 1979-80 school year. Beginning-of-the-year teaching vacancies should be considered a top priority should they reoccur in the future.

A CAI program was proposed to function at the campuses highest on the economic deprivation index to improve achievement in reading and mathematics. The mathematics CAI program began late because of the late delivery and installation of equipment. The CAI reading program was amended out of the Title-I application because a reading curriculum could not be delivered. After it began to operate, in mathematics and late in the year, CAI functioned as a competing program to other Title-I instruction. The computers could probably best be used as part of the MFP program without the restrictions of Title-I.

The Diocese of Dallas operated Title-I instructional programs similar to those in the DISD. The instructional program in the Diocese has been for several years a well-organized, well-managed use of resources.

Title-I programs at institutions for the neglected or delinquent ranged from large to small and from strong to weak. The most obvious conclusions gained from a continued close association between evaluators and the institutions were an understanding of the unique nature of each institution and the inappropriateness of traditional methods of evaluation.

The two largest non-instructional programs, Community Involvement and Staff Development, were both well organized, well staffed, and fully implemented. Both of these components met the objectives that had been set in the application. The staff of each endeavored to strengthen the Title-I instructional program through their efforts.

DISD and the Diocese of Dallas operated parallel summer instructional programs with similar results. The successful DISD summer program of 1979 was improved upon. More students were served because of better recruitment. The well-conceived and well-organized activities of the Title-I summer programs produced the desired educational effects. Based upon the past two years' experience, Title-I summer programs should be continued and enlarged.

Table 1 summarizes the final section of this report. Each component of the Title-I program that was evaluated during 1979-80 is presented. A global picture of the emphasis, scope, degree of implementation, and success of each component can be gotten from the table. More detailed information about any entry on the table is available by reading the corresponding final report.

Table 1

Summary of Evaluations of Title-I Program by Components

Component	Emphasis	Scope	Degree of Implementation	Attainment of Objectives
DISD Reading	Supplementary instruction	56 Schools 9,337 Pupils	Well implemented Well staffed	Grades kindergarten, one, four, five, and six met objectives. Grade two did not.
DISD Mathematics	Supplementary instruction	56 Schools 9,398 Pupils	Many teacher vacancies first half of 1979-80. Late arrival of CAI equipment at most schools.	With the exception of grade two, objectives were met in all grades. Fourth- and fifth-grade students at Maynard Jackson had improved achievement attributed to CAI program.
Migrant Tutoring	Tutoring in reading by paraprofessionals	26 Schools 231 Pupils	Generally high, although some staff positions were vacant	Moderate achievement gains on Inter-American Prueba de Habilidad General and ITBS although achievement objectives were not met. Parental involvement objectives were met. Migrant Student Record Transfer System objectives were met.
DISD Summer School	Instruction in reading, mathematics, creative arts and media	9 Schools 1,279 Pupils	Generally high, although there was some variation among schools	High attainment of primary objectives, moderate attainment of secondary objective.

Table 1 (continued)

Component	Emphasis	Scope	Degree of Implementation	Attainment of Objectives
Diocese of Dallas Regular Program	Supplementary instruction in reading and mathematics	11 Schools 440 Pupils	Very high	Achievement objectives partially met at every grade level. Progress was reported at the institutions.
Diocese of Dallas Summer Program	Instruction in reading, mathematics, creative arts, and media	3 Schools 254 Pupils	Very high	High attainment of primary objective, moderate attainment of secondary objective.
Buckner Baptist Children's Home	Instruction in reading and mathematics	1 School 191 Pupils	Implemented as planned, except afternoon sessions for secondary students were not well-attended	Achievement objectives attained to a moderate degree.
Dallas County Boys Home	Instruction in reading and mathematics	1 School 21 Pupils	Overall, implemented as planned. Student selection and attendance were exceptions.	In general, objectives were met to a high degree in reading and to a moderate degree in mathematics.
Dallas County Child Welfare	Reading and mathematics tutoring	1 School 33 Pupils	Overall, implemented in an organized manner. Contact between tutors and classroom teachers was slight.	Objectives were not met.
Dallas County Juvenile Detention Center	Reading and mathematics tutoring	1 School 330 Pupils	Organized and implemented to a moderate degree	Lack of ratings made educational effects impossible to assess.
Dallas House	Reading and mathematics tutoring	1 School 10 Pupils	Lack of organization, and tutor's three-months leave hindered implementation	Objectives attained to a very high degree in both subjects.

Table 1 (continued)

Component	Emphasis	Scope	Degree of Implementation	Attainment of Objectives
Juliette Fowler Home	Reading and mathematics tutoring	1 School 16 Pupils	Program was moderately disorganized	In general, objectives were achieved to a moderately high degree in both subjects.
Rotary Townhouse, Inc.	Reading and mathematics tutoring	1 School 19 Pupils	Well implemented throughout the year	Objectives were not attained in reading; moderately attained in mathematics.
Staff Development	Professional and paraprofessional training	56 DISD Schools 11 Diocese of Dallas Schools 7 Institutions	Very high	Objectives fully attained.
Community Involvement	PACs, student referrals, and parent training	54 Schools 13,510 Pupils	Very high	High incidence of attainment of objectives. Participation in parent workshops showed a marked increase over 1978-79.

1979-80 Title-I Final Evaluation Reports

Andrews, J. V. *Evaluation of the 1979-80 Title-I Mathematics Program* (T180-341-31-02), September 1980.

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An Interpretive Analysis of Special Education Evaluation Studies

Daniel J. Macy

This document is intended to be a readable, nontechnical report of major findings and implications from research and evaluation studies within the District's special education program in 1979-80. For detailed information, the interested reader should refer to specific reports listed at the end of this document.

The District's special education program is based on the policies of the Dallas Independent School District and the Texas Education Agency and the provisions of Public Law 94-142 which mandate that every handicapped child shall have a free appropriate public education in the least restrictive environment and each child shall have an individualized education program. About 10,000 students are served each year in special education, and these range in age from birth to twenty-two years and include a wide variety of handicapping conditions. The special education program offers instructional placement ranging from the regular classroom to special instruction for hospitalized students and special campus placement. The program staff includes about 900 personnel.

The 1979-80 Special Education Data Base

The basic function of the 1979-80 special education data base was to build onto the existing computer files while continuing to provide information to special education administrators. Variations of student and faculty rosters, current to the week of distribution, were given to special education coordinators, facilitators, diagnosticians, home-school coordinators, psychologists, and speech pathologists corresponding to six-week District reporting periods.

A major objective of the data base was the generation of reports necessary for funding purposes to the Texas Education Agency (TEA) . The TEA Survey Package reported the total number of children between ages 3-5 and ages 6-21 by handicapping condition. The Elementary and Secondary School Civil Rights Survey tallied total special education students by age, instructional arrangement and handicap. Finally, statistical tabulations essential for the Annual Special Education Statistical Report to the TEA were generated by a set of computer routines developed by data base personnel.

The data base was also utilized to provide spontaneous information requested by management. The computer system enabled administrators to be more responsive to such needs, and the types of information requested usually dealt with totals and percentages of special education students in terms of ethnicity, subdistrict, age or handicap. Mailing labels were also computer-generated, which economized on secretarial time when letters were sent to staff or parents.

The Computerized Monitoring and Retrieval (CMR) System was initiated during 1979-80 in order to provide on-line computer storage and retrieval of the dates of student appraisal/placement events. Computer terminals were placed in subdistrict special education offices which enabled immediate access to student information such as dates of reviews, staffings, and medical exams. In addition, selected personnel were able to update and add information on the terminals in order to keep the system current.

Results

1. Table 1 categorizes the frequency and types of reports generated on a routine basis. Faculty, student, and transportation rosters were generated every six weeks. Information was reported annually to TEA, and data necessary for the scheduling process were also printed on an annual basis.

   Information from the data base was requested on an ad hoc basis on 142 different occasions during the 1979-80 year. The number of ad hoc requests increased by 58% when compared with the 1978-79 requests (N=90). Table 2 categorizes the frequency and types of data needed by management. It took an average of 2.33 hours to complete any given request. Professionals needing information from the data base ranged from deputy associate superintendents to subdistrict administative clerks. Table 3 delineates the number of times different personnel requested data.

2. The validity checks revealed that the percentage of total errors slightly decreased during the 1979-80 school year and was basically comparable to the results from the survey taken in March 1979 (Table 4). Overall, these data indicate that the percentage of errors has not changed across time, despite the fact that the number of professionals reporting data has doubled. In addition, the amount of information processed by the data base has increased by 19% when compared to the number of update transactions processed in 1978-79 (N=16,897). The number of 1979-80 transactions was 20,024.

   The cost of data base operations was ascertained by dividing the system into five major functions and charting the hour costs utilized to perform each. Table 5 indicates the total number of days spent on each data base function given two computer programmers (one position was vacant for two-months), one assistant evaluator, principal evaluator, and secretary. Assignment of cost to each function was achieved by totalling each employee's daily salary multiplied by the number of days utilized for each function.

Interpretation

The special education data base was widely used by management to meet a wide diversity of information needs. The type of staff personnel requesting information ranged from administrative clerks to deputy associate superintendents, and the kinds of information ranged from mailing labels to custom frequency tabulations based on student characteristics. The extent of use of the data base suggested that it was an integral part of the management process and a tool relied upon by special education management staff.

Table 1

Types and Frequencies of Routine Data Reported from the Data Base

Type of Report	Schedule for Generation
Faculty rosters	6 weeks
Student rosters	6 weeks
Transportation rosters	6 weeks
Child Find Report	Monthly
TEA Survey Package	Annually (October)
Elementary and Secondary School Civil Rights Survey	Annually (April)
Annual Special Education Statistical Report to the TEA	Annually (June)
Letters of notification to parents about special class placement and transportation authorization, if applicable	Annually (June)
Computer punch cards of students necessary for class scheduling process	Annually (June)

Table 2

Types and Frequencies of Data Requested from the Data Base on an Ad Hoc Basis

Types of Information	Requests N	Requests %
Student rosters by instruction unit type (e.g., Early Childhood Unit)	20	14.1%
Routine student/faculty rosters at less than 6-weeks intervals	16	11.3%
Mailing labels of faculty and/or students	16	11.3%
Tabulations by handicap and sex, ethnicity, age, grade, or school	16	11.3%
SPSS (Statistical Package for the Social Sciences) frequency tables (e.g., handicap by grade)	11	7.7%
Student rosters by class or subdistrict	11	7.7%
Rosters or tabulations of historical data	10	7.1%
Rosters or tabulations of students receiving transportation	8	5.7%
Student rosters by age or handicap	7	4.9%
Student address rosters	6	4.2%
Summary rosters of speech students	6	4.2%
Tabulations of ethnicity by grade	3	2.1%
Faculty rosters	3	2.1%
Student rosters listed by student services number or ID number	2	1.4%
Miscellaneous reports or tabulations	7	4.9%
Total	142	100%

Table 3

Professionals Requesting Data on an Ad Hoc Basis from the Data Base

Professional Service Type	Requests	
	N	%
Central staff	55	38.7%
Research and evaluation staff	42	29.6%
Special education facilitators	12	8.4%
Special education coordinators	9	6.3%
Educational diagnosticians	8	5.7%
Special education teachers	7	5.0%
Administrative clerks	4	2.8%
Speech pathologists	3	2.1%
Occupational/Physical therapists	2	1.4%
Total	142	100%

Table 4

Two-Year Comparison on Accuracy of Data Base Information

	1978-79				1979-80			
	December		March		December		March	
	N	% error[a]	N	% error	N	% error	N	% error
Teachers Sampled	33	—	60	—	34	—	34	—
Total student population listed on data base for selected teachers	344	—	710	—	371	—	429	—
Total number of students that teachers reported should be added	22	6.4%	15	2.1%	18	4.8%	18	4.2%
Total number of students that teachers reported should be dropped	23	6.6%	39	5.5%	14	3.8%	16	3.7%
Total Error	43	12.5%	54	7.6%	32	8.6%	34	7.9%

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[a] Percent error is computed by dividing number of errors by number of students sampled.

Table 5

Data Base Cost Analysis[a]

Data Base Function		Total of Days Utilized by Staff	Total Cost	Percent Total Cost
New Software development[b]		121	$12,710.50	27.3%
Data collection and system maintenance		186	$12,299.85	26.5%
Special projects[c]		98	$ 9,123.00	19.6%
Routine report generation		100	$ 8,221.90	17.7%
Ad Hoc report generation		43	$ 4,118.60	8.9%
	Total	548	$46,473.85	100%

[a] Cost figures do not include computer time.

[b] New software was developed for the Annual Statistical Report, the CMR System, the Child Find Report, the transporation system, and for data base improvements.

[c] Special projects included the class scheduling process and the development of an enrollment projection system.

Survey samples comparing computer file information with classroom enrollments indicated that the accuracy of the data base was within acceptable limits. The total error rate was 7.9%, which was very nearly equal to the 1978-79 error rate, even though the number of personnel reporting data had doubled, and there was a 19% increase in the number of transactions on the data base.

Cost analysis revealed a fairly even balance across four major data base functions: new program development, data collection and system maintenance, special projects, and report generation. Data base growth was evident in that more than one-fourth of total cost was committed to new program development. Also, 27% of all costs were committed to report generation which emphasized the extent of use placed on the data base.

It was apparent that the data base in special education was evolving to provide computer application to the varied management processes operative in special education programming. In effect, the data base had expanded greatly beyond the basic computer applications of counting and listing students.

Special Education Context Evaluation

The Dallas Independent School District's special education program attempts to provide appropriate education for every exceptional child. Special education makes use of a continuum of instructional arrangements which range from complete regular classroom instruction to total self-contained instruction in a special campus setting. The program attempts to provide individualized instruction for each student.

The evaluation conducted was a limited context evaluation of the implementation and operation of the special education program. As such, the evaluation yielded only basic information about program operation. Limited comparisons were made with results from previous years.

The evaluation used a simple one-shot observational design, and the time of data collection was June 15, 1980. The data source was the special education computerized data base which is maintained by special education staff and Research and Evaluation personnel.

Results

1. The number of students served in special education was 10,739, which was 8.2% of the total District enrollment. Table 6 reports these data for the past five years.
2. The percent served in special education by subdistrict ranged from 5.8% to 10.2%. Table 7 reports these data for each subdistrict.
3. Ethnic representation in the total special education program was comparable to total District enrollment. Table 8 compares these data for the past five years. Ethnic representation, however, differed between elementary and secondary student populations. There was a tendency toward overrepresentation of White elementary students in special education and, to a lesser extent, a tendency toward overrepresentation of Black secondary students in special education.

Table 6

Number and Percent of Students Served in Special Education During Five Consecutive Years

Year	Number	Percent	Percent[a] Adjusted
1975-76	8,250	5.67	-
1976-77	8,051	5.78	5.53
1977-78	9,244	6.84	6.35
1978-79	10,238	7.70	7.04
1979-80	10,739	8.20	7.38

[a] Computed for the 1975-76 total District enrollment of 145,503 students, since total District enrollment has decreased over the past five years.

Table 7

Number and Percent of Students Served in Special Education by Subdistrict in 1978-79 and 1979-80

Subdistrict	1978-79		1979-80	
	N	%	N	%
Northwest	2,019	6.9	2,118	7.4
Northeast	1,753	6.6	1,085	7.8
Southwest	1,964	7.1	2,074	7.3
East Oak Cliff	1,270	4.8	1,480	5.8
Southeast[a]	2,031	9.4	2,210	10.2

[a] Includes Seagoville Subdistrict.

Table 8

Percent Ethnic Representation for all Students in Special Education and the Total District During Five Consecutive Years[a]

		Ethnicity			
Year	Population	Black	Hispanic	Other	White
1975-76	Total District	45	13	1	41
	Special Education	45	11	<1	44
1976-77	Total District	47	14	1	38
	Special Education	45	11	1	43
1977-78	Total District	48	15	1	36
	Special Education	45	12	1	42
1978-79	Total District	49	16	1	33
	Special Education	46	13	1	40
1979-80	Total District	49	18	1	32
	Special Education	47	14	1	38

[a] Data for the first four years are from evaluation reports listed at the end of this report.

4. The ratio of males to females in special education was 60 to 40 or about 1.5 male children for every female child. This ratio was stable across the past five years.

5. The proportion of children who began receiving services prior to the fourth grade (excluding speech only service) was 19%. This proportion was 11% in 1975-76.

Interpretation

The percent of students served in special education (8.2%) was below the frequently cited 10% or 12% service rates, but was comparable to service rates reported for large urban centers. There was unfortunately no commonly accepted standard against which to compare the District's 8.2% service rate. However, the percent served has consistently increased over the past five years, and this trend is encouraging.

The variability across subdistricts in terms of percent served in special education was alarming, since the percent served in the East Oak Cliff Subdistrict (5.8%) was well below other subdistricts. If one assumes that the incidence of handicaps should be similar across all subdistricts, one would expect that there were at least several hundred handicapped students in the East Oak Cliff Subdistrict not served in the District's special education program, which raises questions about implementation of the major provisions of Public Law 94-142.

Across the total District, ethnic representation in special education was comparable to District enrollment, but representation differed in the elementary and secondary populations. During the past five years, the percent of White students in elementary special education was consistently about 10% more than in the total District. During 1975-76 and 1976-77, the percent of Black students in secondary special education was, respectively, 7% and 6% more than in the total District, but the difference diminished to 2%, 2%, and 3% in 1977-78, 1978-79, and 1979-80, respectively. There was no conclusive explanation for the overrepresentation of White students in the elementary population, but one interpretation would be that the special education program had greater holding power than the regular program and that special education students were less susceptible to the White-flight phenomenon.

The percent male enrollment in special education (about 63%) was stable across the past five years, and the observed overrepresentation of male children in special education was not uncommon among special education programs. However, these data raised the question of possible sex discrimination in the referral and placement of students in special education, and further study is needed to determine the relationship between gender and handicap incidence.

The increase from 11% to 19% (during the past five years) in the proportion of special education students who began receiving services before the fourth grade was noteworthy, since intervention should begin as early as possible in order to realize maximum benefits. The observed increase was likely due to the District's child find efforts, its early intervention program, Project KIDS, as well as reduced age limitations (Texas Education Agency) for eligibility in special education.

Evaluation of the 1979-80 Child Find System

Project activity during 1979-80 placed greatest emphasis on the child find effort itself and on the provision of services to the located population. Seek-and-find activities continued with the utilization of the project's 24-hour telephone answering service as well as the use of a central administrative screening committee to achieve efficient routing of project referrals. Project staff continued to maintain contact with various human service agencies throughout the metroplex through on-site visits and the dissemination of printed materials to the agencies. The project further continued the development and maintenance of a computerized information system at the local level for monitoring the placement process and for long-range planning.

Results

1. There were 221 referrals to Child Find, and 97% of these were from the target population of out-of-school and unserved, handicapped children.
2. Nearly two-thirds of referrals were between three and five years of age, and almost 90% were between birth and five years.
3. Special education placement was established for more than 66% of the referrals, and the average length of time from referral to placement was 16 weeks.

Interpretation

The number of referrals to child find has remained fairly constant over the past four years and probably represented a plateau in the number of referrals to be expected. However, since the vast majority of referrals (90%) was five years of age or younger, the effectiveness of the system in locating older children was questionable. During the past five years, child find referrals have included an approximate total of 210 children older than five years, and this number may not represent all members of the target population. There was unfortunately no standard for comparison.

The average length of time from referral to placement (i.e., 16 weeks) has increased each year from the first-year average time of eight weeks from referral to placement. Appraisal/placement procedures should be studied to determine more efficient means of managing referrals to child find.

The Evaluation of the 1979-80 Implementation of the KIDS Model Program

The KIDS (Kindling Individual Development Systems) Program was developed by Dallas Independent School District personnel for handicapped infants, toddlers, and preschool children, and their families under a grant from the Bureau for the Education of the Handicapped in the U. S. Office of Education. At the conclusion of the three-year federal funding cycle, in September 1978, the District adopted the KIDS service delivery model for all Early Childhood classrooms. In addition, the District continued funding services to handicapped children aged birth to three years, although services for these children are not mandated generally by state or federal legislation.

The administration and organization of the model is built around three groups: children, parents, and staff. The materials used in the program include the KIDS Inventory of Development Checklist, accompanying curricular activities, which are reflected on MAPs (Mini-Activity Plans), the Parent Self-Appraisal Inventory (PSAI), and accompanying programmed activities for parents.

The major objectives were:

1. To improve development or function of children in the identified area or areas of delay.
2. To provide a continuum of education from a home setting to a school setting for handicapped children and their parents.
3. To deliver instructional services through the cooperative efforts of project staff and parents through home visits, infant stimulation classes, or public school Early Childhood classes.

The sample included the population of students who were placed by District Admission, Review, and Dismissal (ARD) committees in a home-based training program, infant stimulation (center-based) classes, or

Early Childhood classes. Also included were the children's parents and teachers. The population was composed of 381 children, their parents, and 47 teachers. Teachers were divided into two groups: "original" teachers who had taught Early Childhood classes during the developmental years of the program, and "new" teachers who began teaching Early Childhood classes once the program was established in 1978-79. The parent samples consisted of the 57 parents who participated in the parenting component and the 57 parents who responded to the reaction questionnaire.

Results:

1. A total of 381 children received services in the three instructional settings during the 1979-80 school year. The largest number of students (N=321) received instruction in the 42 school-based Early Childhood classes. Twenty-four children were served in their homes, and 36 received instruction in center-based infant stimulation classes.

   The frequencies of children served each year since Project KIDS began implementation are summarized in Table 9. During the fourth year of implementation (1978-79) 15 Early Childhood Special Education classes began implementing the KIDS model, and 20 additional classes began implementation during 1979-80, which accounted for the dramatic increase in the number of children served during those years.

2. Several changes occurred in the procedural design of the parenting component of the Project KIDS model program to accommodate an increasingly large population of children and their parents. To reach as many parents as possible, teachers were utilized as liaisons with parents for Project KIDS during the 1978-1979 school year. Teachers contacted parents, explained the program, solicited participation and administered the Parent Self-Appraisal Inventory (PSAI). Results of this procedure were less than satisfactory due to the limited amount of time teachers were able to devote to this aspect of the program.

   For the school year 1979-1980, procedures were changed to facilitate enrolling parents in the program. Plans for the parenting component of the program called for the solicitation of parent participation through letters sent in November and January. Parents who indicated a desire to participate were administered PSAIs, and activities were planned for them which corresponded to their responses on the PSAI.

Table 9

Frequencies of Children Served Each Year (1975-1980) by Instructional Setting

Service Year	Total N	Instructional Setting			Number New to the program this year	Number continuing this year
		Home-Based	Center-Based	School-Based		
First Year[a] (1975-76)	13	8	5	0[a]	13	
Second Year (1976-77)	93	30	13	50	80	13
Third Year (1977-78)	128	36	22	70	80	48
Fourth Year (1978-79)	338	44	17	277	280	58
Fifth Year (1979-80)	381	24	36	321	289	92
Totals	953	142	93	718	742	211

[a] One school-based class was operated for a few months during the first year, but these students were not included in the total since the limited amount of time did not allow for full implementation.

A total of 57 parents responded to the invitation to participate in the parenting component. The PSAI asked parents to rate their competency in each of four areas: knowledge of child development, knowledge of handicapping conditions, ability to work with the child, and understanding family interpersonal dynamics. The areas in which parents expressed least competency were determining the child's readiness to learn new concepts, and providing activities for the child. Overall, parents rated themselves quite favorably on the twelve items of the PSAI.

3. From the 57 parents who chose to participate in the parenting component, a sample of 18 was randomly selected for a telephone survey. Not all remembered having had contact with the parenting staff. Four parents (28.6%) reported that the only contact that they had with the parenting staff occurred when they completed PSAIs. Other parents reported regular and frequent contacts with the parenting staff, with one reporting as many as 36 contacts. Five parents reported attending parent meetings. Four of these parents had attended one meeting only. Several parents stated that they had not received notice of the meetings. Parents who attended reported a favorable reaction to the meetings.

4. During April 1980, a Parent Reaction Qustionnaire was mailed to the parents of the 381 children participating in Project KIDS. Of those questionnaires mailed, many were returned to the sender. Sixty (15.7%) parents returned the questionnaire. Three parents stated that their child was no longer in the program or had never been a participant, and therefore did not complete the questionnaire. Hence, the findings reported here are based on responses to 57 Parent Reaction Questionnaires, or (those returned to sender were not included in this computation) 19% of all families contacted.

   Response to this survey was strictly voluntary, and no contacts were made to promote response once the initial contact had been made. Therefore, the responding sample may not have been entirely representative of the population.

   Responses to the reaction questionnaire indicated that the terms "Project KIDS" and "MAPS" were unfamiliar to parents. Their responses to the questions appeared to be reactions toward District Early Childhood programs rather than Project KIDS per se. Despite this lack of familiarity with the program, parents' reactions were quite positive toward the services which their children received. Parents felt that their children had made significant gains, and also felt that school personnel provided valuable support to parents. Recommendations as to the improvement of services included the addition of bilingual teachers, improved transportation, and an increase in related services.

5. Results of classroom observations revealed no major differences between new and experienced KIDS teachers in terms of classroom

climate, but observers generally rated the classroom physical settings of experienced teachers higher than new teachers. In both new and experienced teachers, the proportion of learner-oriented statements was about double that of teacher-oriented statements, indicating that teacher attention was centered on students' experiences. However, new teachers did make significantly more reproving statements than experienced teachers.

Group activities were observed in all classrooms on all observation visits. Individual activities were observed in all classrooms, but during only 21 of the total 27 visits. On the average per classroom, four students participated in supervised group activities for just over 14 minutes out of a 20-minute observation period. Individual activities lasted for about 11.5 minutes and typically involved students supervised alternately by the teacher. When the data were grouped according to total group and individual instruction time, the average child received 11.4 minutes of group instruction and 2.3 minutes of individual instruction per twenty-minute period. There was no significant difference between original classrooms and new classrooms with regard to group and individual instruction time.

Project KIDS materials were observed in two of the twelve classrooms. While KIDS materials were not typically observed in the classrooms, activities observed did represent the four major areas of the KIDS Model (gross motor, fine motor, cognitive language, and self-care). Most heavily represented among the four areas were cognitive-language and fine motor skills. A tabulation of the activities observed is presented in Table 10.

Table 10

Numbers of Activities Observed Which Pertained to the Four Areas of the KIDS Model

	Activity Area				
	Gross Motor	Fine Motor	Cognitive/ Language	Self Care	Total
Number of Activities	11	38	36	8	93
% of Total	11.8	40.9	38.7	8.60	100.00

6. Over the course of intervention, home-based students made a mean gain in competency of 5.4 items across all subscales on the KIDS Inventory of Development. Mean item gains for each of the four subscales were: (a) Gross Motor, 5.9 items; (b) Fine motor, 4.8; (c) Cognitive/Language, 7.1; and (e) Self Care, 4.0. When converted to estimated developmental age (EDA) scores, the average gains on the four subscales were: (a) Gross Motor, 3.8 months; (b) Fine Motor, 2.9 months; (c) Cognitive/Language, 3.0 montns; and (d) Self Care, 2.5 months. Tests of significance performed on the mean pretest and posttest items passed in each subscale revealed that gains in all areas were greater than would be expected by chance.

   The mean chronological ages at pretest and posttest for center-based students were 25.9 months and 33.9 months, respectively. The mean duration of intervention for these children was 8.0 months. Mean gain in the number of items mastered across subscales was 8.8 items with an age equivalent of 7.4 months. Mean items gained in each of the four subscales were: (a) Gross Motor, 7.7; (b) Fine Motor, 7.3; (c) Cognitive/Language, 9.9; and (d) Self Care, 10.3. The EDAs of these scores were: (a) Gross Motor, 6.4 months; (b) Fine Motor, 6.3 months; (c) Cognitive/Language, 6.8 months; and (d) Self Care, 10.2 months. Tests of significance performed on the mean number of items passed on pretest and posttest administrations of the Inventory indicated that the gains achieved in all areas were greater than would be expected by chance.

   The mean duration of intervention for students served in District Early Childhood classes was 7.6 months. Mean chronological ages at pretest and posttest were 58.3 months and 65.8 months, respectively. Over the course of intervention, Early Childhood students achieved an average gain of 8.8 Inventory items, representing a mean EDA gain of 9.4 months in each area. The mean items gained on each of the four subscales were: (a) Gross Motor, 6.0; (b) Fine Motor, 7.9; (c) Cognitive/Language, 15.1; and (d) Self Care, 6.4. The mean EDAs of these scores were: (a) Gross Motor, 8.4 months; (b) Fine Motor, 12.4 months; (c) Cognitive/Language, 7.1 months; and (d) Self Care, 9.6 months. Gains in all areas were found to be greater than expected by chance.

7. Developmental progress, when measured on the KIDS Inventory of Development, for students in programs utilizing the KIDS model was generally independent of students' age, sex, ethnicity or instructional location. The relationship between selected independent variables and the posttest scores from the spring 1980 administration of the KIDS Inventory was examined using multiple regression analyses. Characteristics of the students which did evidence a strong relationship with developmental progress were level of development within each scale of the KIDS Inventory and type of handicapping condition. Surprisingly, interacting variables such as degree of developmental delay or sex and ethnicity by handicap did not seemingly contribute to the degree of developmental progress.

8. Twenty-one children graduated from home- and center-based settings in May 1979, and follow-up showed that transition to the school-based program did not happen on a timely basis. In August 1979, 14.3% were placed, and by January 1980, 68.7% were placed. By April 1980, 93.3% were placed in an appropriate setting. Table 11 gives the follow-up placement date for 21 KIDS graduates at four points during 1979-80.

Table 11

Percent of May 1979 Graduates Accounted for
at Four Follow-up Points
(N=21)

Disposition	August 1979	October 1979	January 1980	April 1980
Awaiting Staffing	85.7	38.1	4.8	
Staffed to Early childhood, not attending[a]			19.0	4.8
Attending Early Childhood	14.3	33.3	42.8	52.4
Attending other special education program		4.8	4.8	9.5
Staffed, guardian refused services			4.8	4.8
No longer in District		23.8	23.8	28.6
Percent successfully placed	14.3	50.0	68.7	93.3

[a] Reasons for non-attendance include lack of transportation or lack of notification to guardian or school.

Interpretation

The project parenting component was the weakest area of the project in 1979-80. The project served 381 District children, but only 57 parents (15%) participated in the parenting component (the number of individual families was somewhat less than 381 due to several families having more than one child in the project). These results suggested that the procedure of mailing invitations to parents was either unsound or in need of strengthening and follow-up in order to secure greater parent involvement.

Further evidence of problems in the parent involvement component came from a random sample of the 18 parents who participated in KIDS parent involvement. Results found evidence of widely divergent participation by parents. Some parents could not remember having had any contact with project parenting staff, and other parents reported regular and frequent contact. One parent reported 36 contacts. These data indicated that parenting resources were not allocated in a proportionate manner across participating parents. Only five of the surveyed parents (28%) reported attending parenting meetings, and several parents reported having not received notification of parenting meetings. These data further suggested that the parenting component was not implemented according to project expectations.

Parent reactions to the KIDS model were generally favorable, but reactions indicated low awareness about the terms "Project KIDS" and "MAPs." Parents should likely have been familiar with these terms and results were likely due to the school-based part of the project, where interaction between the home and school was more difficult. Improved implementation of the parent component would have likely increase parent awareness and understanding of the KIDS model.

Pre-post analysis of KIDS Inventory of Development scores showed that children in all three instructional settings (home, center, and school) made significant gains. Comparison of the average developmental age gain (7.4 months) to the average length of intervention (8.0 months) for center-based children showed that the rate of growth or maturation during intervention was 93% of the normal rate. For school-based children, the maturation rate was 124% (9.4 months ÷ 7.6 months). Comparisons were not made for the home-based infants due to the large variability in length of intervention.

The above maturational rates (93% and 124%) were striking, especially in view of the extent of handicap severity evident in most project children. Of course, the pre-post design did not allow for gains due to alternative causes such as ordinary growth over time or possible regression effects, but rates were sufficiently large to suggest that a treatment effect would have remained even if effects due to alternative causes were to have been subtracted out of the posttest scores. Regression analysis with children's scores in the home-based component found that length of treatment was positively associated with gains on the KIDS Inventory of Development, which further supported the conclusion that KIDS intervention was effective.

Classroom observation found that the KIDS model was implemented adequately in the classroom, and there was emerging evidence that the basic organization and structure of the KIDS model assured acceptable continuity in classroom implementation across teachers and schools. Comparison of new and experienced KIDS teachers revealed no major differences in terms of classroom climate, and regression analysis found that developmental gains were not associated with school location. Additional advantages of the model were that teachers liked it and that acceptable classroom implementation apparently did not require excessive staff development and orientation.

A major objective of the project was to provide a continuum of education from the home to the school for handicapped children, but results of follow-up about special service placement after graduation from the home and centers components of KIDS for 21 children found that transition to the school-based setting was not timely. Results showed that only 14% of those eligible were placed the August following graduation. By October 50% were placed, but all children were not yet placed by April following the previous May graduation (eleven months after graduation). Transition from the home- and center-based settings to the school-based setting was clearly an area in need of greater attention.

Process Evaluation of the 1979-80 Project KIDS Outreach

Project KIDS Outreach is a second-year program which was designed to increase the number of quality programs for young handicapped children through replication of the Project KIDS model training, demonstration and dissemination activities. Project KIDS is a DISD model home-to-school transition program for handicapped infants, toddlers, preschool children and their families. The Outreach program, which is financially supported by the Office of Special Education in the U. S. Department of Education, is part of a nationwide network of early childhood projects for the handicapped. The KIDS Outreach component concentrated service delivery efforts on the school-based early childhood population (three- to five-year-olds). The support systems provided to each setting included an appraisal/curriculum, staff development, parent involvement and program evaluation component.

The objectives of the project included the following:

1. Replicate all or a portion of the Project KIDS program components in a minimum of five additional sites in the Dallas Independent School District.
2. Continue replication of the selected program components of Project KIDS in the three regional school districts served during 1978-79 (Duncanville, Grand Prairie, and Lancaster).
3. Replicate all or a portion of the Project KIDS program components in a minimum of two additional sites in the area served by Education Service Center, Region X.
4. Conduct demonstration and information-sharing activities to increase public awareness of the program model and of the importance of early intervention.
5. Participate in the Triple T Consortium (Teaching Texas Tots), a statewide organization for projects that serve handicapped infants, to promote and encourage permissive legislation for handicapped infants zero to three years of age.
6. Distribute Project KIDS dissemination packages in appraisal, curriculum, staff development, parent involvement, and evaluation to other early childhood programs, public and private schools, and regional service centers to facilitate the development of quality programs.

Participation in KIDS Outreach by regional school districts was decided by local school option. The Education Service Center, Region X, advised regional districts of the availability of KIDS Outreach, and these districts opted to participate in Outreach in accordance with their needs.

Original 1979-80 project objectives and budget called for replication of the KIDS model components in a minimum of five additional sites in the Dallas ISD and a minimum of two additional districts in Region X. KIDS Outreach implementation in the Dallas ISD included 34 sites in contrast to the minimum of five initially specified, while the commitment to two regional sites was realized. Programmatic need and philosophy supported the expansive intradistrict implementation of Outreach, but such implementation did decrease resources available per site and increased implementation difficulties.

Results

1. The extent of model implementation was less than desired. While 100% of the teachers implemented four of the eight model components, two components were implemented by less than 50% of the teachers. Table 12 reports these findings.

Table 12

Extent of Project KIDS Model Implementation in Local and Regional Outreach Classrooms

Model Components	Percent Implementing (N=43)
1. Administering KIDS Inventory of Development Scale to students in program	100
a. Inventories current	98
2. Sending MAPs (Mini-Activity Plans) home for parents to assist in instruction	67
3. Charting student activities with the MAPs	46
4. Charts of student progress	44
5. Individualized student folders	100
a. Currently assigned MAPs in folder	58
6. IEPs for each student	100
7. Learning centers in classroom	100
8. Implementing parent involvement	84

Implementation problems cited by the teachers generally focused on the KIDS Inventory in terms of the vagueness of wording and criteria, its lack of application to certain areas and handicapping conditions, and its need for modification and expansion. Other difficulties included the lack of appropriate materials and equipment for the Inventory, time required for administration, and the inability to use the scale exclusively. The 1978-79 Outreach evaluation findings also suggested a need for modification and expansion of the Project KIDS Inventory of Development Scale. Evaluation personnel recommended revisions of the scale in light of teacher and staff responses regarding its use in the program. As a result of these findings and recommendations, project management authorized initiation of revisions on the Inventory. The revised Inventory is expected to be available for use during the 1980-81 school year.

2. Project teachers generally reacted favorably to the KIDS model. Cited as a major advantage of the KIDS program was the KIDS Inventory in terms of its use for determining functional levels, noting student progress, and assistance with IEPs. In addition, the developmental sequence, organization and structure of the program were cited as advantages. Also mentioned were the availability of resources, project staff as consultants, and the simplicity of the MAPs for use with teacher aides, parents, and others involved in an instructional role.

   While project staff provided technical assistance to teachers in model implementation and the majority of teachers reacted favorably to this assistance, there were reports of a need for improved assistance. One-fourth of the teachers indicated that the assistance was not helpful, and parent involvement was a major area of need.

3. The project continued dissemination of materials in the areas of appraisal, curriculum, staff development, parent involvement and evaluation. A total of 160 dissemination packages was sold (at cost) to agencies and personnel in 23 states. The dissemination products were favorably received by the majority of the respondents. Overall responses generally indicated a high regard for the value and usefulness of the information and the extent to which the organization of the materials facilitated easy use and location of information in the packets. The resulting sample of product users was 23% (N=26) of the 112 user questionnaires mailed. However, the low rate of return was not surprising in light of the high rate of turnover in staff personnel and incomplete or inadequate addresses. Nevertheless, the results of the survey may have been biased as a result of the low sample return.

Interpretation

Problems in model implementation spoke to the need to upgrade staff development and technical assistance provided to teachers. Implementation problems were not unexpected, however, due to the expansion of replication sites beyond original project specifications. With the exception of the parenting component, implementation problems did not impair overall model implementation. Training and assistance should be more content-specific and address the procedures of model components in a more thorough and applied fashion. Reaction to the KIDS model was favorable, and teachers apparently believed in the theoretical basis of the model.

Project dissemination activities included both extensive packet dissemination and numerous training workshops and professional presentations. User reaction to project materials was apparently positive, but the survey return rate was not suitable for a definitive conclusion.

Evaluation of the Structured Environment for the Emotionally Disturbed (SEED) Project

Project SEED is a Dallas Independent School District model program for emotionally disturbed students. The program is designed to organize the instructional ecology for more severely disturbed students through the provision of carefully sequenced experiences. The focus of the sequence was the provision of carefully identified increments of learning provided within three structured levels of the project which were to allow the severely disturbed student to be accommodated in increasingly less restrictive environments. The components of the three-level structured environment included behavior management strategies, curriculum interventions of parental involvement, and therapeutic interventions (group and individual counseling support).

The 1979-1980 school year was the second year of the program's proposed three-year developmental period. Second year implementation focused on the refinement of program components and on continuing the delivery of services to emotionally disturbed students. Project SEED was implemented in two schools, one elementary and one secondary, where the regular continuum of curriculum and student services was provided in both regular and special education classrooms.

Assessment of the progress of project implementation was based on previous evaluation results reported for 1978-1979 and on specifications in the project grant. Described in the 1978-79 evaluation report were ten problem areas identified during the first year of program implementation. These problem areas were addressed by the management team during regularly scheduled meetings throughout 1979-1980. Alternative actions were discussed and decisions made concerning adaptation of project policy. These areas were: an identifiable approach to instructional programming, a systematic and consistent counseling program, expansion of parent involvement, establishment of consistent criteria for student progress, completion of building modification, placement of full staff, administration of standardized tests of academic achievement and self-concept, identifiable process for mainstreaming, management-staff interaction and supervision of students beyond the project's physical setting.

Evaluation data collected during 1979-80 included classroom observations and attendance, behavior, and parent involvement data from project records. The Wide Range Achievement Test was used to gather a measure of educational progress.

Results

1. A total of 87 students, 38 elementary and 49 secondary, identified as severely emotionally disturbed, was served by the project. Length of participation in the project varied at both sites. Twelve elementary students participated in the project the entire school year. The 26 remaining students participated from 11 days to 174 days with an average participation of 99 days or approximately three six-week periods. At the secondary site, three students were enrolled for the entire school year. Participation of the remaining 46 students ranged from 16 days to 174 days with an average of 91 days.

   Students' ages ranged from 6 to 17 years, with an average elementary age of 9.5 years and an average secondary age of 14.3

years. The intellectual functioning of the population as measured by the Wechsler Intelligence Scale for Children - Revised (WISC-R) was described as borderline retarded. The scores ranged from 42 to 123, and the average intelligence quotient was 72.2. The ethnicity of the project population was 54% Black, 37% White, and 9% Hispanic. Male students constituted about 86% of the project population.

2. Process evaluation data indicated that problems in implementing the project remained at both sites. The techniques and strategies employed within the behavior management component varied across classrooms and across project sites. The system of token economies and points was altered at least twice during the year. Behavioral and academic criteria for student advancement continued to be largely subjective. Emphasis on parental involvement activities was evident only at the elementary site. Table 13 presents a summary of the visiting teacher's activities from January 1980 to May 1980.

Table 13

Summary of Visiting Teacher Activities

Frequencies				
Home Visits	Observation	Telephone Contacts	ARD Meeting	Conferences
80	20	196	75	148

A survey of individualized educational programs (IEP) indicated that many were incomplete and were not a result of multidisciplinary development. There appeared to be no systematic approach to curricular intervention through employment of the baseline curriculum. Observation also indicated that systematic procedures for identifying specific counseling objectives were not established, although general goals were established along with counseling schedules.

3. A review of student records showed that movement toward a less restrictive environment occurred for 25 (29%) of the students. At the elementary site, 11 (29%) students advanced from Level I to Level II, and three (8%) students advanced to Level II of the program. Four (11%) students were subsequently staffed to a regular education placement.

Nine of the secondary students advanced from Level I to Level II. Five (10%) secondary students were advanced to Level III. A summary of student disposition as of May 29, 1980, is shown in Table 14.

4. At the elementary site, overall misconduct and behaviors necessitating time-out intervention decreased. Average daily misconducts and time-outs dropped from 53.9 and 11.0 respectively in the second six-week period to 40.3 and 9.6 respectively in the sixth six-week period, as can be seen in Table 15. Individually, seven (18%) students demonstrated an appeciable reduction in disruptive behaviors. Overall, there was no appreciable reduction of disruptive behaviors and time-outs at the secondary site. These data are tabulated in Table 16. Individually, the data indicated a noticeable reduction in behaviors necessitating time-out for four (8%) students. There was an increase in disruptive behaviors on the part of three elementary students and six secondary students.

Table 14

Student Disposition
(May 29, 1980)

	Returning to Program		Other DISD Sp. Ed.		DISD Reg. Ed.		State School		State Hosp.		Dropped Out		Moved Out of DISD	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Hillcrest North	21	24%	2	2%	5	6%	2	2%	4	5%	13	15%	0	0%
H. C. Withers	16	18%	14	16%	4	5%	0	0%	1	1%	0	0%	3	3%
Totals	37	43%	16	18%	9	10%	2	2%	5	6%	13	15%	3	3%

Table 15

Average Daily Enrollment (ADE), Attendance (ADA), Misconducts (ADM) And Time-Outs (ADTO) Per Six-Week Period at H. C. Withers

Six-week Period	ADE	ADA	ADM	ADTO
First	21	84%	19.3	3.3
Second	27	87%	52.9	11.0
Third	30	88%	66.0	10.8
Fourth	30	83%	62.5	13.5
Fifth	28	86%	44.0	8.7
Sixth	30	87%	40.3	9.6

[a] Data available for 19 days of this period.

Table 16

Average Daily Enrollment (ADE), Attendance (ADA), Time-Out (ADTO) and Breaks (ADB) Per Six-Week Period at Hillcrest North

Six-week Period	ADE	ADA	ADTO	ADB
First	16	70%	1.8	18
Second	21	63%	1.8	24
Third	22	64%	4.9	31
Fourth	18	69%	6.4	34
Fifth	21	66%	5.2	32
Sixth	22	68%	8.5	32

There were no suspensions at the elementary site. Ten students were involved in twenty suspensions at the secondary site. This compared to eighteen suspensions involving eleven students during 1978-1979. Some behaviors necessitated the involvement of juvenile authorities. One student received court-ordered placement in a juvenile home outside of Dallas. Six students were arrested for various crimes including burglary, theft, major school disruption, sexual offenses, and destruction of property.

5. With one exception, truancy was not a problem at the elementary site where the overall average daily attendance was 86% for the year. Three other elementary students who experienced poor attendance during the first six-week period increased their attendance considerably for the second six-week period, and this remained improved for the remainder of the year.

   At the secondary site, truancy was a major problem, and the overall attendance rate was 67%. The attendance rate for six students continued to decline until they eventually dropped out or, in one case, were restaffed. Three other students with poor attendance during their first period of enrollment also dropped out.

   Of the eighty-seven students who enrolled in the program, thirteen (15%) secondary students dropped out or quit attending. This compared to five (9%) drop-outs during 1978-1979.

6. Educational progress, based on the Wide Range Achievement Test (WRAT), measured for students at the elementary site, showed an average gain of one year, one month, in reading; eight months in spelling; and four months in math. Administration of the WRAT at the secondary site was limited, with no scores available for spring 1980.

7. At the secondary site, a majority (67%) of non-participant professionals surveyed indicated an overall positive reaction to the program whereas during 1978-1979, secondary level respondents had mixed reactions. A majority (53%) of the secondary site respondents indicated a perceived need for programmatic changes. Although there was no consensus as to what changes were needed, respondents perceived a need for a separate building facility, and more compatible staff. Of the 12 parents of project students who responded to a questionnaire, nine (75%) indicated an overall positive reaction to their child's participation, and five (42%) felt that their child's overall progress was better than before.

Interpretation

Results of the study identified problems in implementing the project which remained from the first year (1978-1979) at both sites although the problems were of a lesser degree at the elementary site. Of the ten problem areas identified at the end of 1978-1979, four appeared to be satisfactorily resolved, progress was made in two additional areas, and serious problems remained in four areas. The areas of success included completion of crisis rooms at both sites, placement of appropriate staff at both sites, scheduling of regular management team meetings and notification to Admissions, Review and Dismissal (ARD) teams to be aware of mainstreaming issues in the placement of students in Project SEED.

Improvement was shown also in administration of the WRAT to participating students at the elementary site. Academic achievement data were still virtually non-existent at the secondary site. Also at the elementary site, school psychologists appeared to be providing appropriate counseling at consistent intervals.

Problem areas remaining included: (a) lack of a systematic approach to provision of services to individual students; (b) lack of objective criteria for measuring student progress; and (c) lack of specific guidelines for structuring environment across levels of the program.

One factor contributing to the difficulties in developing successful techniques for implementation of the project appeared to be the high turnover in both student and staff populations, especially at the secondary site. Another contributing factor may have been the lack of cooperation or communication among departments represented on the management team. Although the team members met at regular intervals and agreed upon actions to facilitate program progress, there apppeared to be little follow-up activity. Areas in which the management team reached a consensus and in which no action was taken were: (a) development of a project manual for use by participating professionals; (b) identification of appropriate tests of academic achievement; (c) purchase of sufficient numbers of the Piers-Harris scale and administration of the scale on a pre-post schedule; (d) development of procedures for identifying counseling objectives and documenting appropriate activities; and (e) devlopment of a systematic approach to curriculum intervention.

Students continued to progress through the Levels of the program and return to regular education classrooms apparently having mastered school-appropriate behaviors. However, assessment of the actual contributions of program components to this progress would have required identification and implementation of procedures which were compatible with program goals and objectives, a condition not evident in project implementation.

Technical Assistance to the Hyperkinesis Screening Project

The Hyperkinesis Screening Project was a cooperative undertaking by the Departments of Health Services, Pupil Personnel Services, Research and Evaluation, and Special Education. The project was a developmental research project in response to a need expressed by the District's Learning Council for a procedure to report systematic observations regarding student hyperkinetic behavior. District personnel frequently receive requests from local physicians for such information, and the project basically sought to secure a standardized procedure for observation and reporting selected student behavior. The project was also an attempt to validate two existing behavior rating scales as a measure of hyperkinesis and to develop local norms for score interpretation.

The sample for the study included a quasi-random selection of 955 regular classroom students, aged 6 through 9 years. Data collection involved behavior ratings completed simultaneously by regular classroom teachers and school nurses on two behavior rating scales (Davids scale and Connors scale). There were 728 teachers included in data collection, which was an average of 1.3 children per teacher, and the sample included 126 schools, which was an average of 7.6 children per school. Approximately 80 school nurses participated in data collection. Teachers relied on cumulative knowledge and experience about children in responding to items on the scales. There was ample opportunity for teachers to have known the children, since the time of data collection was the middle two weeks in February. Nurses, on the other hand, relied on a brief classroom observation period (at least 30 to 40 minutes) while the teacher was conducting an academic activity, such as reading or math, and while the child was basically engaged in in-seat activity. Teachers and nurses were instructed to complete their observations independently of each other.

Evaluation Results

1. Both teachers and nurses rated Black children as being more hyperactive than White children on both scales, and Hispanic children received lower ratings than either Black or White children. Male children received higher ratings than female children but there were no differences in ratings according to age group. Table 17 reports the F-tests by age, sex, and ethnicity factors in behavior ratings.

Table 17

F-Tests for Major Factors in Teacher and Nurse Ratings

Major Factor	Teachers				Nurses			
	Davids		Connors		Davids		Connors	
	F	P	F	P	F	P	F	P
Age	1.68	NS	1.36	NS	0.04	NS	1.01	NS
Sex	8.68	<.01	19.08	<.01	14.87	<.01	15.28	<.01
Ethnicity	8.13	<.01	9.68	<.01	16.66	<.01	11.84	<.01

a Interactions among major factors were not significant and were not reported.

2. Regardless of age, sex, or ethnicity of children, school nurses rated children as being less hyperactive than teachers.

3. The correlation between the two behavior rating scales for the total sample was .83 when completed by teachers and .80 when completed by nurses. The correlation between the scales when completed by nurses was substantially less (r=.55) for Hispanic children.

4. The correlation between teacher ratings and nurse ratings for the total sample was .51 on the Davids scale and .52 on the Connors scale. The correlations between teachers and nurses were lowest for Hispanic children (r=.34 for the Davids scale, and r=.44 for the Connors scale).

5. Norms published for the Davids scale classified 28% of the sample as being at risk for hyperkinesis. Table 18 reports the percent of children classified according to published norms, and, as expected, the norms classified sex and ethnic groups differentially.

Interpretation

The relatively low correlation between teachers and nurses (r=.50) and the lower behavior ratings reported by nurses indicated that teachers were the preferred source for behavior ratings in screening for hyperkinesis. This was as expected since teachers have the opportunity

Table 18

Percent of Sampled Children Classified as Possibly Hyperkinetic According to the Davids Scale Norm Criteria

	Teacher Rating				Nurse Rating			
	Not Hyperk.[a]	Marginal[b]	Probable Hyperk.[c]	Total Percent at Risk	Not Hyperk.	Marginal	Probable Hyperk.	Total Percent at risk
Female	76	15	9	24	86	10	4	14
Male	68	18	14	32	78	13	9	22
Black	65	21	14	35	66	24	10	34
Hispanic	80	12	8	20	92	7	1	8
White	72	17	11	28	80	12	8	20
Total Sample	72	17	11	28	82	12	6	18

[a] Total score 18 or less.

[b] Total score 19-23.

[c] Total score 24 or more.

to know the children much better than do nurses. For Hispanic children, nurses were apparently even less prepared to rate behavior than for Black or White children.

The high correlation between the Davids and Connors scales (r=.80) indicated that both scales yielded the same kinds of information, but the Connors scale was the preferred scale due to the simpler and more direct scheme used to rate behavior. Nurses and teachers also reported informally that the Connors scale was easier to use.

The results regarding age, sex, and ethnicity effects were significant in terms of selecting cutoff scores for identification of children. The same cutoff score can be used for all children regardless of age (at least in the six- to nine-year range), but cutoff scores should be adjusted according to the child's sex and ethnicity. If a single cutoff score is used to identify all children, there will be an overrepresentation of selected subgroups such as male Black children in the population classified as at risk for hyperkinesis.

One limitation to the study was the omission of analysis to investigate the impact, if any, of rater demograpny on behavior ratings. It was hoped that further analysis can be done to study the effect of rater ethnicity and perhaps rater age in the data collected.

Summary and Recommendations

The special education computerized data base was an integral part of special education program operation, and development and use of the data base had increased from 1978-79. In 1979-80 there was expanded application of input and retrieval of information via video-display terminals, and there was a 19% increase in the number of student maintenance transactions. The data base was seen as evolving to provide computer applications to special education management processes. There was evidence that data base activities were critical in meeting the needs of management, and continuation of the data base function is encouraged strongly.

The special education program as a whole may have served the appropriate numbers of children, with the probable exception of the East Oak Cliff Subdistrict where the service rate (5.8%) was below the total District rate of 8.2%. The findings suggested that the mandate of Public Law 94-142 for a free appropriate public education for all handicapped children was not being implemented in the East Oak Cliff Subdistrict. The Southeast Subdistrict served 10.2%, and the procedures used in the subdistrict may provide basis for initial study. Referral and appraisal procedures in the East Oak Cliff Subdistrict should be reviewed to identify ways in which to extend special education services to unserved handicapped children.

There was no evidence of overrepresentation of minorities in the special education program. A previous trend toward overrepresentation of Black secondary students in special education was not evident, but the percent of White elementary students during the past five years was consistently about 10% more than in the total District.

In the past several years, the District has initiated efforts to provide early intervention for handicapped children. Most notable have been Project KIDS and Project Zero Reject (the child find effort), and state guidelines have changed also to permit intervention for younger children. The early intervention efforts to date apparently have increased the proportion of handicapped children served before the fourth grade from 11% to 19%. This was a noteworthy and significant outcome since intervention must take place very early in the child's life in order to realize maximum benefit.

The District's child find system to locate unserved, handicapped children identified a total number of referrals consistent with previous years, but there were indications that older, unserved handicapped children might not have been identified, since 90% of child find referrals were five years old or younger. The average time from referral to placement was 16 weeks, and this figure had increased during each of the past five years. The results indicated a need to review and possibly to redesign the child find system in order to improve the referral-placement timeline and to study the effectiveness of the system in terms of older children.

The KIDS model program for early intervention for handicapped children appeared to continue its effectiveness in promoting developmental progress, and there was evidence that both parents and teachers generally responded well to the model design and that the model could be implemented fairly easily across different teachers and schools. However, there were problems in implementation of classroom materials and procedures in the school-based setting of the project, and it was thought that more content-specific staff development and technical assistance would have remediated the observed problems. Difficulties in implementation probably resulted from the decision to expand model replication sites beyond the numbers originally specified.

The parenting component of the KIDS model was not implemented satisfactorily. The number of participating parents was small relative to the total number of children (57 parents compared to 381 children), and the wide divergence across participating parents in terms of the degree of participation suggested disproportionate allocation of parenting resources. Project management should commit considerable effort toward implementing the parenting component in 1980-81.

Implementation of Project SEED (Structured Environment for the Emotionally Disturbed) was somewhat improved from 1978-79. During 1979-80 the project management team agreed upon procedures to improve implementation, but there was little follow-up in carrying out most team decisions. Among these were development of a project procedures manual, selection and procurement of student progress measures, development of counseling procedures, and development of a systematic approach to curriculum intervention. In short, the project continued to experience major implementation problems, which were more acute at the secondary school site.

Selected students in Project SEED exhibited improvement in classroom behavior and progressed to less restrictive educational settings. Observed improvement in students was more evident at the elementary school site, and there was more evidence of the expected project implementation at the elementary site. The student population presented severe behavior management and instructional problems. This was especially evident at the secondary site where the overall attendance rate was only 67% (as compared to 86% at the elementary site) and where several students were involved in criminal behavior.

Efforts like Project SEED address a major need in special education programming in large, urban school districts, and it is recommended that management efforts be increased to the level necessary to bring about successful project implementation. Project SEED has addressed an extremely difficult-to-serve population, and management efforts are likely to be above and beyond those required in the more usual special education program.

The Hyperkinesis Screening Project was a coopeative effort by several departments and was successful in developing procedures for screening for hyperkinetic (i.e., hyperactive) behavior. Classroom teachers were preferred over school nurses in rating behavior, and a preferred behavior rating scale was selected. Additionally, normative cutoff scores were developed for classification of students as being at risk for hyperkinesis. It is recommended that the Connors behavior rating scale, completed by the child's classroom teacher and interpreted according to local normative data, be the appropriate response to requests from local physicians regarding observations of student behavior.

1979-80 Special Education Evaluation Reports:

Gilliam, D. F. C. and Rogers, A. M. Evaluation of the 1979-80 Child Find System (SE80-115-31-08), October 1980.

Gilliam, D. F. C. and Rogers, A. M. Process Evaluation of the 1979-80 Project KIDS Outreach (SE80-117-31-08), October 1980.

Hawkins, D. E. and Rogers, A. M. Evaluation of the Structured Environment for the Emotionally Disturbed (SEED) Project (SE80-118-31-08), October 1980.

Macy, D. J. Context Evaluation of the 1979-80 Special Education Program (SE80-114-31-08), October 1980.

Macy, D. J. and Kocsis, J. J. Technical Assistance to the Hyperkinetic Screening Project (SE80-119-31-08), October 1980.

Mullen, M. E., Gilliam, D. F. C., and Rogers, A. M. Evaluation of the 1979-80 Implementation of the KIDS Model (SE80-116-31-08), October 1980.

Reisman, K. C., Holt, M. A., Kocsis, J. J., Macy, D. J. The 1979-80 Special Education Data Base (SE80-113-31-08), October 1980.

An Interpretive Analysis of the Alternative Education Evaluation

Allen W. Scott

In compliance with the 1976 desegregation court order, the Dallas Independent School District (DISD) established an alternative education system composed of vanguards (grades 4-6), academies (grades 7-8), and magnet high schools (grades 9-12). Although not created as a result of the court order, the Skyline Career Development Center (CDC) was included in the alternative education evaluation because, like the magnets, it had a District-wide attendance area.

In general, the vanguards, academies, and magnets were expected to attract students such that the student population drawn to these schools would reflect the ethnic mix of the DISD. Each vanguard, academy, and magnet/CDC also offers the special curricular or instructional emphasis listed below:

Vanguard Schools	Special Feature
K. B. Polk	Program for academically talented
Mark Twain	Fundamental or "back-to-basics" curriculum
Maynard H. Jackson	Individually Guided Education program
Sidney Lanier	Expressive Arts
Amelia Earhart	Montessori program
Academy Schools	
Oliver Wendell Holmes	Classical languages and literature
Pearl C. Anderson	Career exploration
Sequoyah	Environmental Science
W. H. Atwell	Fundamental or "back-to-basics" curriculum
A. W. Spence	Program for academically talented and gifted
W. E. Greiner	Expressive arts

Magnets

Arts Magnet High School	Career training in the fine arts
Business & Management Center	Career training in business
Human Services Center	Career training in the social services
High School for the Health Professions	Career training in all levels of health care
Multiple Careers Magnet Center	Career training for the handicapped
Magnet Center for Public Service	Career training in government and law
Transportation Institute	Career training in the transportation industry
Skyline CDC	Training in 25 widely differing career areas

The information contained in this interpretive analysis highlights the comprehensive evaluative information contained in the individual reports relative to each of the special schools (Applebaum, SP80-446-31-30; Johnson & Scott, SP80-110-31-07, SP80-111-31-07; Lombardi & Scott, SP80-105-31-07, SP80-106-31-07, and SP80-107-31-07; Maples & Scott, SP80-108-31-07 and SP80-109-31-07; Scott & Anderson, SP80-112-31-07; Scott, SP80-121-31-07; and Scott, Lombardi, Maples, Johnson, & Anderson, SP80-124-31-07). If more detailed information on one of the specific schools is desired, please refer to the appropriate report referenced on the last page of this report.

Vanguards

Ethnic Distribution

The five vanguards have exhibited varying degrees of success in attracting students. K. B. Polk, the school with most restrictive entrance requirements, was the most successful in attracting students, with 112 transported for desegregation purposes; however, 75% of those transported were White. Sidney Lanier, previously predominantly Hispanic, transported 40 students, 90% of whom were White. Earhart, a previously predominantly Black school transported 36 students, 53% of whom were White and 42% of whom were Hispanic. Mark Twain, also previously predominantly Black, transported 34 White and Hispanic students. Maynard Jackson only transported a total of 21 students, 17 of whom were Black.

The ethnic composition of the five vanguards may be found in Table 1. Only Earhart was clearly representative of the District in its ethnic distribution. Jackson was a one-race school, with a 98% Black student body. The other vanguards were also unbalanced in favor of one ethnic group: Lanier, 61% Hispanic; Polk, 67% White; and Twain, 74% Black.

Table 1

Enrollment in Vangards by Ethnicity

	White		Black		Hispanic		
Vanguard	N	%	N	%	N	%	Total
Earhart	58	30	93	48	43	22	194
Jackson	10	2	639	98	3	1	652
Lanier	107	21	87	17	308	61	502
Polk	86	67	32	25	10	8	128
Twain	80	23	260	74	10	3	350

Academic Achievement

The vanguards were compared by school and by grade level with matched control groups on Iowa Tests of Basic Skills (ITBS) and Basic Objectives Assessment Test (BOAT) results. Only Mark Twain showed consistent superiority (on the language subtest of the ITBS) over its matched control group across all grade levels. Maynard Jackson's language subtest scores in the fourth and sixth grades were superior to the matched groups. Although other isolated significant differences occurred, they did not appear to be consistent across grades within a school. There were no significant differences between BOAT results of the vanguards and their matched groups. Table 2 presents the national median percentiles for each vanguard at each grade level on the ITBS and the percentage of third-grade students who correctly answered 70% or more of the total number of BOAT items. In general, it would appear reasonable to assume that the vanguard students are receiving at least as good a general education as other students throughout the District.

Academies

Ethnic Distribution

The academies were generally more successful in attracting students than the vanguards. Pearl C. Anderson transported 347 students distributed proportionally across the three ethnic groups. W. H. Atwell attracted 187 students (63% White and 35% Hispanic) to complement the predominantly Black local population. W. E. Greiner was able to attract but 14 students for desegregation purposes. O. W. Holmes transported 171 students, with essentially proportionally ethnic distribution. Sequoyah transported 27 students, most (63%) of whom were White, to supplement the predominantly minority indiginous population. Alex Spence attracted 88 students, 81% of whom were White.

Table 2

Iowa Tests of Basic Skills and Basic Objectives Assessment Test Performance for the Vanguards

School	Grade Level	ITBS Median National Percentile			BOAT
		Reading	Language Arts	Mathematics	Percent Above 70% Correct
Amelia Earhart	4	31	37	40	
	5	39	37	34	
	6	33	35	34	71
Maynard H. Jackson	4	23	39	28	
	5	20	32	23	
	6	21	31	24	66
Sidney Lanier	4	19	22	19	
	5	14	22	16	
	6	15	20	22	55
K. B. Polk	4	92	98	97	
	5	95	99	98	
	6	88	95	95	98
Mark Twain	4	39	54	54	
	5	40	73	53	
	6	46	66	41	86

Note. The test data for K. B. Polk include only students enrolled as Vanguard students since this is a school-within-a-school configuration.

The ethnic composition of the six academies may be found in Table 3. Only one school, Spence (with 78% White enrollment) could be characterized as a one-race school. Of the remaining five academies, only Greiner, with a disproportionately high Hispanic enrollment, differed substantially from the District's ethnic composition.

Table 3

Enrollment in Academies by Ethnicity

Academy	White N	White %	Black N	Black %	Hispanic N	Hispanic %	Total
Anderson	140	39	192	54	23	7	355
Atwell	213	31	374	55	96	14	683
Greiner	422	36	173	15	578	49	1173
Holmes	65	26	173	68	17	8	255
Sequoyah	73	45	69	43	20	12	162
Spence	82	78	16	15	7	8	105

Academic Achievement

The ITBS and BOAT results of the academies were compared with those of a matched comparison group. No consistent pattern of achievement superiority on ITBS scores was observed across grade level. Although some statistically significant differences were observed, and all but one favored the academies, no school did significantly better than its control on the same subtest in both seventh and eighth grades. Only students at Holmes and Spence had significantly higher eighth-grade ITBS subtest scores than the corresponding comparison groups. Anderson and Holmes were the only schools in which the mean percent of items correct on the BOAT was significantly greater than the matched group. Table 4 presents the national median percentiles for each academy at each grade level on the ITBS and the percentage of eighth-grade students who passed the BOAT. As in the case of the vanguards, it would appear that the general education received by academy students was at least on a par with, if not superior to, that received by similar middle school students throughout the District.

Table 4

Iowa Tests of Basic Skills and
Basic Objectives Assessment Test Performance
for the Academies

		ITBS Median National Percentile			Percent Passing
School	Grade Level	Reading	Language Arts	Mathematics	the BOAT 70% Correct
P. C. Anderson	7	34	38	32	
	8	37	36	29	66
W. H. Atwell	7	34	45	36	
	8	37	36	30	46
W. E. Greiner	7	23	30	24	
	8	27	20	8	40
O. W. Holmes	7	61	71	61	
	8	64	70	60	93
Sequoyah	7	35	38	30	
	8	25	25	35	62
A. W. Spence	7	93	92	95	
	8	90	91	91	100

Note. Test data for Holmes and Spence include only the students enrolled in the Academy since these are school-within-a-school configurations.

CDC/Magnets

Ethnic Distribution

The ethnic distribution of each of the District's magnet high schools and the CDC may be found in Table 5. As the data reveal, the Business and Management Center and the High School for Health Professions differed substantially from the District's ethnic composition in grades 9-12. In fact, the Business Management Center (with 75% Black enrollment) was virtually a one-race school. Overall, the enrollment in the magnet high schools and CDC closely resembled that of the District principally because of the offset in White-minority enrollment between Skyline CDC and the Arts Magnet, where the percentage of White students was above that of the District, and Health Professions and Business Management, where minority students were overrepresented.

Table 5

Enrollment in Magnets/CDC by Ethnicity

Magnet	White N	 %	Black N	 %	Hispanic N	 %	Other N	 %
Arts	304	44	321	46	67	10	4	1
Business	88	8	788	75	176	17	6	1
Human Services	39	33	63	53	16	14	0	0
Health Professions	146	22	425	65	72	11	12	2
Multiple Careers	28	39	38	54	5	7	0	0
Public Service	77	40	78	40	37	19	1	1
Transportation	107	24	248	55	90	20	3	1
Skyline CDC	1080	46	1003	42	246	10	44	2
Total Magnet/ CDC[a]	1869	33	2964	53	709	13	70	1
Total District[b]	14914	38	19430	49	4863	12	--	—

[a] Data based on first quarter enrollment figures.

[b] Data based on enrollment in grades 9-12 in April 1980. Number of "other" students (mostly Asian) included under "White."

As White enrollment in the District has declined, competition among schools for these students has intensified. The original four magnets (Arts, Business, Health, and Transportation) were established in 1976-77. Since that time, White enrollment in DISD high schools has declined by approximately 20%. Relative to 1976-77 enrollment, White enrollment at Arts, Health, Transportation, and Business have declined by 7%, 40%, 48%, and 63%, respectively. White enrollment at Health, Business, and Transportation steadily declined, whereas the Arts Magnet White enrollment declined during the second year of the program (1977-78), but has increased each year since then.

Black enrollment trends in the original magnets and DISD were quite different. Health maintained its Black enrollment during the first three years, but lost a large number in 1979-80. Business and Transportation saw a drop in Black enrollment in the second year of the program (1977-78) but recovered somewhat in 1978-79. Like Health, both Business and Transportation suffered a sharp drop in Black enrollment in 1979-80. At the high school level, DISD Black enrollment has been relatively unchanged since 1976-77.

Health, Business, and Transportation saw declines in both Black and White enrollment levels in 1979-80 relative to 1978-79. Much of this drop may have been due to student fears that the part-time option would not be continued as an integral aspect of the magnet system. Unlike the other original magnets, Arts maintained its Black and White enrollments in 1979-80 relative to 1978-79. Arts was predominantly a full-time magnet and thus was not as vulnerable to losses in part-time enrollment.

Hispanic enrollment trends at Business, Health, and Transportation have been very similar. Each school lost a relatively large percentage of their small Hispanic enrollment in the second year of the program (1977-78). But since that time, Hispanic enrollment has been maintained at approximately the 1977-78 level. Generally, the District and the Arts have seen yearly increases in Hispanic enrollment.

Graduate Follow-up

A follow-up was conducted among 1978-79 graduates of the four original magnets and Skyline CDC, who had attended the magnet/CDC schools for the three years since the magnet system was initiated. In December 1979, a follow-up questionnaire and a prepaid return envelope were mailed to all magnet/CDC graduates. Approximately six weeks later, a sample of graduates who had not returned the questionnaires was surveyed by telephone in order to obtain a larger group for analysis and to compare respondents who returned the mailed questionnaire with nonrespondents. A brief summary of the results will follow. More detailed information may be found in The 1979-80 Follow-up Study of 1979 Magnet School and CDC Graduates (Scott, A. W. & Anderson, M. C., SP80-112-31-07).

Many of the characteristics of graduates contacted by mail and by telephone were similar. Ratings given to cluster and academic instruction at the magnets/CDC by both groups were favorable. The proportion of participants working or studying in cluster-related areas was similar for both groups. Also, sex distributions closely resembled one another. However, some differences were noted. Ethnically, telephone participants were more predominantly Black than mail participants. The percentage of self-reported unemployment was greater among telephone participants than for mail participants (8% vs. 3%). And since the survey was not anonymous, it was possible to compare eleventh-grade reading levels for mail respondents, telephone respondents, and nonrespondents. It was found that telephone respondents and nonrespondents had equivalent reading levels, which were significantly lower than reading levels of graduates who returned the mailed questionnaires. These differences suggest that graduates who returned the mailed questionnaire were somewhat more successful in post-graduation pursuits than nonrespondents.

Across magnets and the CDC, 23% of the graduates responded to the mail survey. An additional 13% were successfully contacted and interviewed by telephone. In all, 36% of the 1979 graduates of the five schools responded. Although the low rate of response to the mail survey would have cast serious doubt on the reliability of the data had those students been the only subjects on whom data were collected, the similarity of response on relevant items of the telephone sample would add considerable credibility to the findings.

Thirty-seven percent (N=69) of all respondents reported that they were students on a full-time basis. This was the most prevalent response, followed by full-time workers (N=60, 32%), working students (N=42, 23%), and unemployed (N=9, 5%). The percentage of graduates with jobs ranged from 83% at the Transportation Institute to 39% at the Arts Magnet. The Arts Magnet and the CDC had the largest percentages of graduates attending four-year colleges (39% and 42%, respectively), as well as the largest percentage continuing their education (77% and 68%, respectively). Worthy of note was the relatively large percentage of Arts Magnet graduates attending trade or professional schools (19%). The Business Management Center had the next largest percentage of graduates in trade or professional schools (6%).

Among the working graduates, 46% were working in jobs directly related to their cluster training, 13% were working in jobs somewhat related to their cluster training, and 39% were working in jobs totally unrelated to their cluster training. Among graduates continuing their education, 67% were studying in an area directly related to their cluster training, 12% were studying in areas somewhat related, and 14% were studying in areas unrelated. No information was available for 9% of the student graduates. Shown in Table 6 is the relationship of current pursuits of participants to cluster instruction for each of the schools.

These findings suggest that the first year after graduation the majority of the 1979 magnet and CDC graduates were pursuing careers or further preparation for careers in areas related to their major area of study in the magnets or the CDC. Although unemployment among the follow-up age group was quite high nationally (16%), only 5% of the magnet and CDC graduates who responded reported themselves unemployed. The magnets and the CDC appear to be successfully meeting the needs of most graduates as far as career preparation is concerned.

Student Attitudes

A survey of student attitudes was administered in all magnets, except the Multiple Careers Magnet Center, and the CDC during the spring of 1980. A comprehensive account of the survey results condensed in this report may be found in the Magnet/CDC Student Attitude Survey Results, 1979-80 (Scott, A. W., Lombardi, J. D., Maples, C. W., Johnson, A., Jr., & Anderson, M., SP80-124-31-07).

Table 6

Relationship of Current Pursuits of Participants to Cluster Instruction

Pursuits:	Skyline CDC		Arts		Business		Health		Transportation		Across Schools	
	N	%	N	%	N	%	N	%	N	%	N	%
Employed Participants:[a]												
Related	8	30.8	2	20.0	28	66.7	6	31.6	3	60.0	47	46.1
Somewhat Related	5	19.2	1	10.0	5	11.9	3	15.8	0	0.0	14	13.7
Not Related	12	46.2	7	70.0	9	21.4	10	52.6	2	40.0	40	39.2
Not Determined	1	3.8	0	0.0	0	0.0	0	0.0	0	0.0	1	1.0
Student Participants:[b]												
Related	25	64.1	9	45.0	26	76.5	14	77.8	0	0.0	74	66.7
Somewhat Related	5	12.8	2	10.0	3	8.8	3	16.7	0	0.0	13	11.7
Not Related	5	12.8	6	30.0	4	11.8	0	0.0	0	0.0	15	13.5
Not Determined	4	10.2	3	15.0	1	2.9	1	5.6	0	0.0	9	8.1

Note. Participants who indicated that they were in the military (N = 3), were housewives (N = 3) or unemployed (N = 9) were excluded from these analyses.

[a] The percentages are based on the total number of participants from each magnet who indicated that they were employed.

[b] The percentages are based on the total number of participants from each magnet who indicated that they were in school.

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The most common reason given for selecting a magnet was to prepare for a career. The second most common reason given by students at all schools except the Arts Magnet and the Transportation Institute was to prepare for future study. The second most common reason given at the Arts Magnet and Transportation was interest in the cluster area as a hobby. From two to eight percent of students in each school indicated that their major reason for attending a magnet was to get out of their home high school.

Concerning the magnet/CDC in general, student ratings ranged from a high of 82% favorable at the Arts Magnet to a low of 67% favorable at the Transportation Institute. Students at each magnet, except the Arts Magnet and the CDC, felt that disruptive students were a problem. Overall, student ratings for their clusters ranged from 82% favorable at the Arts Magnet to 77% favorable at the Transportation Institute. Over 90% of all students felt that cluster classes would help them if they went to college, that they could read and understand the books and reference materials used in their cluster classes, and that field trips were valuable. Thirty percent of the students felt that cluster teachers did not spend enough time with them and that there was too much book work in their cluster classes. These findings suggest that the magnets and the CDC were meeting the perceived needs of most students.

Overall ratings of academic classes ranged from 72% favorable at the Arts Magnet to 57% at the Human Services Center. Though over half of the students thought that they needed more help in their academic classes than their teachers could give them, at least 80% felt that what they had learned in academic classes was useful to them and that it would help them to get and hold a job. Concerning attitudes toward busing, 14% of magnet/CDC students stated that they were afraid when riding the bus, 35% felt that their bus driver was not a safe driver, and 55% felt that the bus was not always in good, safe repair.

To compare student ratings of magnet/CDC academic classes with those of comprehensive high schools, part-time student ratings of their home high schools were compared school-by-school with full-time magnet student ratings of magnet academics. Only at the Arts Magnet did full-time students rate their magnet academics higher than part-time students rated their comprehensive high school academics. Public Service part-time and full-time students rated their academics equally. At other magnets and the CDC, the ratings of part-time students for their home-school academics were higher than those of full-time students for the academic programs in the magnets and CDC. This suggests that additional effort should be exerted to make the academic programs more responsive to student needs. Since many students felt that their academic teachers were unable to spend enough time with them, some form of an organized small group study program in which students could work with teachers or advanced students might be beneficial.

The overall high ratings of the magnets and the CDC in general, coupled with even higher ratings for the individual clusters, clearly indicate a high level of student satisfaction. The fact that the majority of students indicated a desire to return to the same magnet for the 1980-81 school year provides even more evidence of satisfaction.

One major area of concern revealed by the attitude survey and supported by the DISD data base related to academic scheduling for part-time magnet and CDC students. It was found that 29% of the part-time students who attended magnet or CDC cluster classes in the afternoon and 44% of those attending magnet or CDC cluster classes in the morning were not receiving at least three traditional academic classes. Students receiving fewer than three academic classes daily would not likely meet graduation requirements without attending summer school.

Academic Achievement

Median performance on the Tests of Achievement and Proficiency (TAP) for magnet/CDC students ranged from the 40th percentile in math to the 54th percentile in reading for Public Service; from the 41st in science to the 48th in written expression and information sources for the CDC; from the 32nd in math to the 49th in social studies for the Arts Magnet; from the 19th in math to the 40th in written expression at Human Services; from the 28th in math to the 39th in written expression at Health; from the 22nd in science to the 32nd in written expression for the Business; and from the 9th in reading to the 15th in math for Transportation. These results suggest that the Magnet Center for Public Services and Skyline CDC both attract students who perform almost as well as students across the nation in basic academic areas. At the Arts Magnet High School, the performance compares favorably to students across the nation on some subtests but drops notably in the area of mathematics. Similarly, while students in the Human Services Magnet performed well in written expression, their poorest performance, mathematics, was very low compared with the nation's student population. The students at the High School for Health Professions, the Business and Management Center, and the Transportation Institute did not perform well academically when compared with other students in the nation.

The students at the CDC and all magnets except Transportation performed as well as or better than the District-at-large on all TAP subtests and the Basic Objectives Assessment Test (BOAT). Table 7 contains the median national percentile on each subtest of the TAP and the percent having passed the BOAT for all full-time students in each magnet and the CDC. The same data for the total District are included for reference.

Curriculum-Referenced Evaluation Status

The resignation of the evaluator responsible for the development and/or refinement of criterion-referenced instruments for the CDC, and the subsequent elimination of this position from the District's budget, reduced test development activities at the CDC for 1979-80. However, tests were developed or revised for eight modules of the child-related cluster curriculum. These tests were reviewed by the curriculum writer and are to be revised based on that input and pilot tested during the 1980-81 school year.

Curriculum-related tests have been obtained, revised, or developed for the Transportation Careers and Technology, Automotive Tune-Up, and Automotive Diesel clusters at the Transportation Institute. These tests will be revised for use in the Transportation cluster at the CDC.

Curriculum-referenced tests were developed and administered in Health Exploration, Medical Laboratory I, and Anatomy and Physiology I clusters at the High School for Health Professions. Test content was directly linked to the curriculum with the number of test items in a content area determined by teacher judgments of relative importance. Revisions will be made during the 1980-81 school year based on item data and teacher input.

Table 7

Full-Time Students' Tests of Achievement and Proficiency and Basic Objectives Assessment Test Performance for Spring 1980

	Median Percentile for All Grades							
Subtest	Arts	Business	Health	Human Services	Law	Transportation	CDC	Total DISD
Reading	45	24	38	34	60	8	46	25
Mathematics	36	22	31	21	43	12	46	24
Written Expression	50	33	40	50	59	11	52	27
Information Sources	47	29	40	36	59	11	51	27
Social Studies	53	29	39	32	55	16	47	25
Science	42	24	33	31	43	15	42	22
Composite	46	25	37	43	56	8	47	24
Percent having passed BOAT	84	77	87	74	94	55	88	67

Note. TAP percentiles based on national norms.

At the Business and Management Center, curriculum-related tests developed for the Accounting, General Clerical Laboratory, Shorthand, and Typing courses were administered during 1980. All of the tests in these areas had been previously developed and utilized at the BMC for the Office Careers cluster. In 1979-80, plans for a new test in Retail Mathematics in the Marketing/Management cluster were outlined, the content areas were identified, items were created with input from the instructional staff, and pilot testing was completed. All of the BMC tests will be revised during 1980-81.

At the Human Services Center a curriculum-related test was developed and pilot tested for the course, World Cultures. The test had been previously developed in 1978-79 but extensive revision occurred in 1979-80 to tailor the test to specific course content taught at the HSC. The child-related cluster tests developed for the CDC will be revised to meet the needs of students in this cluster at the HSC.

A second version of the World Cultures test was developed for the Magnet Center for Public Service (MCPS). Like the test for the Human Services, the test for the MCPS was derived from the test developed during 1978-79. The content of this test, however, was based on the course taught at the MCPS.

The nature of the program at the Arts Magnet High School (AMHS) lends itself to performance measures more than written tests. As a result, initial development and pilot testing of structured observational techniques using jurors was done for the Drama, Music, and Dance clusters. Videotapes were used for mime (Drama cluster) and ballet (Dance cluster) exercises. Student performances were then rated on structured rating forms. Structured rating forms were used to rate live vocal (Music cluster) performances. The general approach used, the performance structure and content observed, and the structured rating forms were also rated by the jurors. Revisions to the procedures will be made during the 1980-81 school year based on juror and teacher input.

A system of instructional evaluation based on individual student objective mastery was revised and retested at the Multiple Careers Magnet Center. Further revision is proposed for the 1980-81 school year.

Summary and Discussion

In summary, one vanguard, four academies, five magnet high schools, and the Skyline CDC have been relatively successful in creating an ethnic balance that approximates that of the District-at-large. It should not be concluded that the other alternative schools could be characterized as segregated. Only one vanguard, Maynard Jackson; one academy, Alex Spence; and one magnet high school, the Business Management Center, had 75% or more of one ethnicity. And, although the Talented and Gifted Academy at Spence was over 75% White, it was a school-within-a-school that was predominantly minority. The remaining alternative schools, while not a close approximation of the district's ethnic composition, were clearly integrated.

The vanguards were less successful than the academies in attracting students for desegregation. The range in numbers attracted by the vanguards was from 112 for K. B. Polk to 21 for Maynard Jackson. The attracting power of the academies was much more variable. Pearl C. Anderson drew 347 students with near proportional representation from all ethnic groups. In contrast, Greiner attracted only 14 students for desegregation. It should be pointed out, however, that Greiner had local enrollment in excess of 1,100 students.

With the exception of Business and Health, the magnets and the CDC were still drawing relatively representative samples from the three primary ethnic groups. Although the Health magnet is nearer proportional representation, the trend across years has been toward a decreasing White enrollment. If this trend is not reversed in the near future, Health is destined to join the Business magnet as an essentially one-race school.

Compared with other DISD schools, the vanguards and academies appear to be doing an average to above average job of teaching. Vanguard and academy students tend to score at least as high on the Iowa Tests of Basic Skills and the Basic Objectives Assessment Tests as their counterparts in other Dallas schools.

With the exception of the Transportation Institute, all magnets and the CDC demonstrate achievement trends equal to or higher than the District medians on all subtests of the Tests of Achievement and Proficiency and the Basic Objectives Assessment Test. Four of the schools, Public Service, Arts, Human Services, and the CDC, had median composite scores within the average range based on national norms.

Magnet and CDC students tended to rate the magnets in general and the cluster programs very favorably. They were less favorable in their ratings of magnet/CDC recruiting and counseling, academic classes, and District-provided transportation.

1979-80 Alternative Education Evaluation Reports

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RE80-814-61-05

An Interpretive Analysis of the Implementation of the System-wide Testing Program, 1979-80

Cordelia R. Alexander

The major group tests administered through the System-wide Testing Program (SWT) of the Dallas Independent School District (DISD) included the Basic Objectives Assessment Tests (BOAT), the Texas Assessment of Basic Skills (TABS), and the various norm-referenced or standardized tests. The BOAT, a District-required test, and the TABS, mandated by Texas law, provided measures of the extent to which students mastered certain minimum or basic skills. The norm-referenced tests measured a full range of achievement and provided comparisons against which to judge student progress. The System-wide Testing Schedule, 1979-80, indicated this year's change to new norm-referenced test forms for assessing students in grades 1 through 11. Forms 7 and 8 of the Iowa Tests of Basic Skills (ITBS) replaced the old form 5 of the ITBS. The Tests of Achievement and Proficiency (TAP) eliminated use of the Iowa Tests of Educational Development (ITED).

The intent of SWT was to provide information in support of the instructional program for identifying student needs, effecting curricular changes, monitoring student learning, and communicating student needs and successes to the community. In addition to the minimum or necessary test implementation procedures, SWT conducted a number of studies for improving or redirecting its program. The purpose of this interpretive analysis is to document and summarize the major components and supporting technical studies of group testing and to note implications for future test administrations and for uses of test results.

Implementation and Documentation of Group Testing Components

Four studies were designed to document implementation and assess validity of the results of BOAT and all norm-referenced tests. Some limited information on TABS implementation has also been included; however, details on the characteristics and results of TABS have been presented by Sheehan and Anthony (1980). Two of the studies outlined general administrative procedures related to group testing. The other two studies noted SWT special services and reporting systems.

The specific goals of these studies related to providing information for (a) planning future test administrations, (b) making changes in program implementation, (c) reporting to school personnel of the extent of testing that occurred, (d) improving communication of test results, and (e) identifying problems related to meeting the goals of testing.

Implementation of Major Group Testing Programs

Research Procedures. Documentation of implementation procedures was maintained as the various tests were administered. Building test coordinators responded to written surveys following the different training sessions. Interface with the DISD Data Processing Department in order to facilitate test processing was continuous throughout the school year. The number and percentage of students tested were tabulated according to school, grade, and total District.

Results. Levels 3 (grade 3) and 6 (grade 6) of the BOAT were administered as previously scheduled during the period of March 17 through 28, 1980; classroom teachers served as examiners. A Spanish form of these tests was piloted during this administration. Approximately 165 students in grade 3 and 69 students in grade 6 responded to the Spanish BOAT; of the 30 schools that administered this form of the BOAT, 60 percent tested more than five students on an individual school basis.

The Level 8-12 BOAT was administered to all eligible students in grade 8 and to those students in grades 9 through 11 who had not achieved a passing BOAT score (at least 70% correct). The testing period was projected for four weeks, January 28 through February 29, 1980 (19 days); however, the actual testing extended six weeks or 29 days. Approximately 80 personnel from the Research and Evaluation Department attended a three-hour training session relative to BOAT administration during the period of January 22 through 24, 1980. The BOAT Examiner's Manual, Level 8-12, was used as a guide for addressing specific procedures for serving as test examiners or proctors in all middle and high schools. Responses from the participating schools indicated that most of the test administrators performed efficiently and conducted testing in a professional manner. Reports of test results for all BOAT tests were returned to the schools in May 1980. Table 1 indicates the number of students tested in relationship to projections.

The norm-referenced tests (Metropolitan Readiness Tests, Iowa Tests of Basic Skills, and Tests of Achievement and Proficiency) were administered as projected during the period of April 21 through May 2, 1980. Approximately 91% of all students enrolled in kindergarten and grades 1 through 11 were tested. The percentage of students tested in grades 9 through 11 was approximately 80. Students in kindergarten, grade 1 and grades 9 through 11 were tested according to grade level classification; however, students in grades 2 through 8 were individually

Table 1

Total District Students Tested by Grade - 1979-80 BOAT

Grade	Projected Testing Enrollment[a]	Number Tested[b]	Percent Tested
3	11,127	10,551	95
6	9,923	9,414	95
8	9,995	9,193	92
9	8,433	6,584	78
10	5,483	4,070	74
11	3,510	2,500	71
Total	48,471	42,312	87

Note. The numbers and percentages reported here differ from those in Report N
RE80-800-61-30 because no exclusions were made for special education students
students who responded to any portion of the test were counted in the total.

[a] For grades 9-11 only those students who had not previously taken the test
who had previously failed the test were targeted for testing. The projecte
testing numbers for grades 3, 6, and 8 reflect total enrollment at those grades.

[b] Number of students responding to any portion of the test or to the total test.

assigned test levels according to previous test performance and other variables. Tables 2 and 3 indicate, according to grade, the number of students tested and the test-level configurations.

TABS was implemented during the period of February 26 through March 2, 1980. These specific dates were finalized after the development and distribution of the District's System-wide Testing Schedule, 1979-80. The following procedures relative to TABS were coordinated by SWT under the direction of the Texas Education Agency (TEA): (a) receiving and verifying test materials, (b) training school personnel to handle details of test administration, (c) distributing and retrieving test materials, (d) providing quality control of materials, (e) returning used and unused materials to TEA and the scoring agency, (f) serving as clearinghouse on all TABS information, and (g) distributing test results and providing assistance in determining uses and interpretations.

One or two test coordinators, as determined by the school principal, served as facilitators for implementing the group testing program at each school. Specifically, test coordinators were expected to provide test information and pertinent training to school principals and teachers. Five informational/training sessions were conducted during the school year (see Table 4). All sessions related to (a) BOAT, TABS, and norm-referenced test implementation, (b) test reporting and (c) test administration procedures.

Information that would eventually compose an updated test coordinator's handbook was disseminated through the various meetings and the District's mail system. Types of potential handbook information were: (a) instructions for coding student identification for new test booklets, group testing headers, and answer sheets; (b) copies of new report formats; and (c) descriptions of new tests from the teacher's test manuals.

Table 2

Total District Students Tested by Test, Grade and Invalid Test Level - 1979-80 MRT, ITBS, TAP

Grade	Projected Testing Enrollment	Number Tested[a]	Percent Tested	Valid Test Level(s) Assigned	Invalid Level Used	Number Tested on Invalid Level
			Metropolitan Readiness Tests (MRT)			
K	8,931	8,396	94	2	7 (ITBS)	72
			Iowa Tests of Basic Skills (ITBS)			
1	10,895	10,385	95	7	2 (MRT)	89
2	10,613	10,204	96	7,8	None	0
3	11,127	10,619	95	8,9,10	7	43
4	10,562	9,996	95	9,10,11,12	8	24
5	10,150	9,669	95	9,10,11,12,13	7,8	3
6	9,923	9,425	95	10,11,12,13,14	9	43
7	9,947	9,147	92	11,12,13,14	None	0
8	9,995	9,064	91	12,13,14	11	53
			Tests of Achievement and Proficiency (TAP)			
9	12,014	9,492	79	15	16	15
10	10,111	8,302	82	16	15,17	25
11	8,483	6,925	82	17	16	13
Totals	122,751	111,624	91			380

[a] Number of students responding to any portion of the test or to the total test.

Table 3

Number and Percent of Students Tested by ITBS Test Level, 1979-80

(Grades 2-8)

Grade		Level 7	8	9	10	11	12	13	14
2	Number	1567	8637						
	Percent	15	85						
3	Number	43*	2111	7027	1438				
	Percent	.4	20	66	14				
4	Number		24*	2986	6129	839	16		
	Percent		.2	30	61	8	.2		
5	Number	2*	1*	679	2419	5955	591	22	
	Percent			7	25	62	6	.2	
6	Number			43*	1350	2424	4955	575	78
	Percent			.5	14	26	53	6	1
7	Number					1867	1906	4865	509
	Percent					20	21	53	6
8	Number					53*	2503	2088	4420
	Percent					.5	28	23	49

*Denotes students tested with invalid test level.

Table 4

Test Coordinators' Meetings

School Attending	Dates of Sessions	Meeting Place	Number Attending	Percent of Schools Represented
High Schools	Nov. 9	Dunbar TEC[a]	28	90
	Feb. 11	Management Academy	32	100
Middle Schools	Nov. 28	Dunbar TEC	23	96
	Mar. 10	Dunbar TEC	22	92
Elementary K-3, 4-6	Feb. 16	Skyline High School	127	91

[a] Dunbar TEC = Dunbar Teacher Education Center

Test reporting systems were rewritten to accomodate the change to new tests and to improve the accuracy of and communication of test data. Programming staff of the Data Processing Department designed the plan for meeting the outlined objectives in September 1979. These responsibilities were shared by Data Processing and the senior analyst assigned to SWT. Specifically, all scoring systems and report formats were designed by the System-wide Testing group and provided to Data Processing for development and implementation. The following reporting systems were either initially developed or redesigned during 1979-80: (a) class lists of scores, (b) student's report of scores, (c) group summary of scores (BOAT only), (d) permanent record labels, (e) testing rosters, and (f) instructional skills analysis. Included in the appendix to this report are sample copies of the various report forms.

System-wide Testing, Service Center, disseminated on a District-wide basis the MRT, ITBS, TAP, Cognitive Abilities Tests (CAT), BOAT, TABS, Diagnostic Mathematics Tests (DMT), and the Shaw-Hiehle Computation Tests. The distribution of these tests included quality control upon the initial return of test results and reusable materials, and the dissemination of information relative to the testing process and results.

Observation of Standardized Testing Procedures

Research Procedures. A random sample of 67% of all schools was observed. Facilitators from the Learning Department were used as observers across the various subdistricts. Instructions regarding the appropriate testing procedure for the MRT, ITBS, and TAP were reviewed with the facilitators to insure correct observations. Irregularities in standardized testing procedures were tabulated and summarized across tests and subdistricts for the total District.

Results. General observations relative to test proceedings indicated that there were sufficient quantities of materials and that test administrators appeared appropriately organized. Ninety percent of test administrators read the instructions verbatim and adhered to the specified time intervals; however, at grades 7 through 11, 36% of the testings were administered through the public address system.

According to timed-on-task observations for ITBS (grades 3-8) and TAP, a significant number of students did not finish during the testing time allotted for various subtests. For grades 3-8, four (22%) out of 18 testing sites were observed where all examinees finished the reading comprehension subtest. For the math subtests, five (19%) out of 27 sites were observed where all examinees finished within the time allotted. In grades 9-11, two (9%) out of a total of 22 observations across all subtests given and in all schools observed found all examinees finishing in the prescribed time period.

SWT Special Services

Research Procedures. Documentation of services was maintained on a daily basis throughout the 1979-80 school year. Evaluation surveys were administered, as appropriate, at the time of providing services. The number of persons served and the resource requirements involved were tabulated with an assessment of the future need for similar services.

Results. The SWT newsletter, "Checkpoint," was published and distributed in three issues (1600 copies) to school principals, test coordinators, Research and Evaluation staff, and other administrative or teaching personnel. Approximately 320 person-hours of preparation were necessary for publication. On October 13, 1979, SWT directed the administration of two screening tests for prospective candidates to the District's Leadership Training Program. Requests for special computer-generated reports and analyses are included in Table 5. The various staff development presentations are presented in Table 6.

Reactions to the staff development activities and the publication, "Checkpoint," were favorable. Written surveys and rapid reports completed at the time of in-service activities expressed the need for similar information on a continuous basis. It was noted on a number of occasions that the need for knowledge and training related to testing was crucial for teachers, counselors, principals, and other school resource personnel. The special computer-generated reports were disseminated upon demand to meet the needs of the users. Results have indicated that 67% of similar kinds of reports will be needed on an annual basis.

Reporting Systems for SWT Results

Research Procedures and Results. Information was collected through the use of a letter sent to large-city school districts across the United States and through the use of a survey sent to DISD school principals and test coordinators. It was found that the majority of large-city school districts utilized bound annual reports with summaries, test scores, and explanations for disseminating test results. Some school districts used class lists, school summaries, and student/parent reports as additional means of communicating test results. DISD principals and test coordinators responded to the survey with the following information: test results were being used and reported to parents, test reports were useful, and some

Table 5

Special Computer-Generated Reports and Analyses, 1979-80

Service Provided	Number Served: Schools	Number Served: Personnel	Number of Students Processed	Person-hours Involved
Special Reports	6	4	214,000	123
TABS Rosters[a]	126	-	18,000	18
Score Listings by Next Year Location	64	-	18,000	8
Score, Preslug Answer Sheets	Austin ISD[b]	3	12,000	83
NAEP Rosters[c]	11	-	800	20
Totals	207	7	271,000	252

[a] TABS = Texas Assessment of Basic Skills
[b] Austin ISD = Austin Independent School District (aided preparation for DISD test processing)
[c] NAEP = National Assessment of Educational Progress

Table 6

Staff Development Presentations,
1979-80

Kind of Presentation	Major Audience Served	Number of Sessions	Total Number in Audience	Person-hours Involved
School Faculty	Classroom Teachers	23	500	201
PTA and PAC[a]	Parents	20	216	115
Title I	Title I Teachers	1	200	15
Job-Alike (District)	Classroom Teachers	15	800	135
Conference/ Laboratory (District)	Classroom Teachers	4	23	30
	Totals	63	1819	496

[a] PTA = Parent Teacher Association ; PAC = Parent Advisory Committee.

changes were needed. Requests were received for student/parent reports, more copies of all reports, a change in the format of the group response record, and for assistance in teaching test-taking skills.

Supporting Technical Studies

Equating New and Old Test Forms

Purposes and Procedures. Beginning with the 1979-80 school year, recently developed Forms 7 and 8 of the ITBS were used in the norm-referenced testing of students in grades 1 through 8. Form 7 was primarily administered in grades 1 and 2; Form 8 was used in grades 3-8. Similarly, high school student achievement was measured by the new Form T of the TAP instead of the 1970 version of the ITED. In order to maintain an adequate data base for the District's many administrative, instructional and evaluative programs (accreditation, eligibility for certain funds, tracking students, monitoring curriculum, etc.), two studies were designed to provide information on the relationship between (a) ITBS Forms 5 and 7 and (b) the ITED and TAP.

The preliminary step in equating required that random samples of student data from spring 1979 be taken of (a) ITBS, Form 5: grades 1 and 2 and (b) ITED: grades 9 through 11. These data were used to produce Rasch model calibrations (determination of item difficulty values) for reading and mathematics subtests. The Rasch model is a mathematical statement of the probability that an examinee with a certain amount of knowledge (referred to as ability) will give a correct response to an item of a given degree of difficulty. The Rasch model has many uses in the area of test development and application. One of these uses is test equating, the focus of these investigations.

As originally planned, one study was to have included equating of the old and new forms of the ITBS for grades 1 through 8. However, near the commencement of the study it was determined that the test publisher had made available information equating the test for grades 3 through 8. Therefore, extra testing for equating purposes in these grades became a costly redundancy and, thus, was not conducted. Hence, the refocus of the study upon the first and second grades only.

The next step in equating involved administration of Form 5 items to students enrolled in grades 1 and 2 during this school year; ITED items were similarly administered to students in grades 9 through 11. This testing occurred two weeks prior to regularly scheduled system-wide testing. These sets of data were combined with the new test (ITBS, Form 7 and TAP) data and analyzed under Rasch procedures.

Results. The two forms of the ITBS were successfully linked for grades 1 and 2; equated scores for reading subtests and mathematics subtests were produced and subsequently used in the reporting of summary test results. It was also determined that the reading comprehension and mathematics subtests of the ITED and TAP should not be equated. Certain technical results of the equating process indicated that the TAP and ITED items were so dissimilar that the two tests may be considered to be measuring different aspects of reading and mathematics. Reasons for dissimilarity between the tests included differences in the range of knowledge assessed, style and format differences, and the division of the TAP subtests into grade levels (the ITED was not so divided).

Assignment of Test Levels for Out-of-level Testing

Out-of-level testing, the use of a test designed for examinees above or below actual grade placement, has become a concern of test users and developers nation-wide. Within the DISD at many grade levels, over 50% of the students responded to an out-of-level test. In general, an out-of-level test is selected for a student so that the content and difficulty level of the test is appropriate for that student. However, there is a concern regarding how the test level should be selected and whether or not out-of-level tests provide accurate measurements. Thus, two investigations were conducted to answer these and other related questions in order to provide quality testing procedures.

Development of Assignment Procedures

Research Procedures. The test-level assignment procedure is based upon selecting a test level such that the items are neither too difficult nor too easy for each student. Selection of the test level is based upon a student's previous ITBS performance (grades 2-8) and the reliability of that performance. Specifically, mathematics (total) and reading (total) subtest scores were averaged and these average scores were classified as chance (guessing) level (0-25% correct responses), low unreliable (26-35%), reliable (36-70%), high unreliable (71-85%), and very high unreliable (86-100%).

Students in grades 2 through 8 were recommended test levels as computed by the levels assignment algorithm. These recommended levels were summarized by classroom and each classroom teacher was asked to review the recommendation and alter them as necessary. These recommended levels and any alterations provided the basis for formal test-level assignments as well as constituting the basis for pre-printing appropriate test-level answer sheets with student name and identification number.

Results. This year's test-level assignments resulted in over 65% of the students in grades 2 through 8 being tested on-grade level or above. Furthermore, approximately 60% of the scores in grades 2 through 8 were within a reliable range of measurement. Based on ITBS performance in reading and mathematics, on a District-wide basis, an average of less than 8% of the scores were at the chance or guessing level in grades 2 through 8; approximately 1% of the scores were at chance in on-grade level testing at grade 1. For grade levels 2 through 11 including ITBS and TAP testing, an average of less than 9% of scores in reading and mathematics fell at the chance level. Thus, it can be concluded that the levels assignment procedures, including the on-grade level assignments in grades 9 through 11, were working well, but potential exists for improvement.

Study of Test-levels Assignments

Evaluation Procedures. Schools were selected randomly, stratified by subdistrict, to include approximately 100 sixth-grade students for each subdistrict. Classrooms were the sampling unit, in order to minimize the organizational burden in the schools agreeing to participate in the sample. The resulting sample consisted of seven schools: Milam, Maple Lawn (Northwest); Lipscomb (Northeast); Terry (Southwest); Rylie, John Q. Adams (Southeast); Bryan (East Oak Cliff). A total of 467 students were tested.

Approximately thirty additional items from the vocabulary section of the ITBS were administered to each student. The items represented the sections of the vocabulary test immediately preceding and succeeding the section the students took in their April SWT administration of the ITBS. Thus, each student's vocabulary score could be obtained on three consecutive levels of the ITBS. These scores were used to determine whether there was any sort of bias introduced by the assignment algorithm.

Results. The difference between the achievement test scores reflected by the assigned level and by either the next higher or lower level was practically equivalent. Thus, it can be assumed that the assignment algorithm is operating within an acceptable statistical margin for measurement error. The most significant observation which can be made based on this study is that overestimation of functional test level is much more damaging than underestimation, with respect to its biasing effect on the statistical analyses. It seems that overestimation is a more serious error due to the high number of chance-scores encountered in this circumstance. Thus, test scores based on measurement with a student's functional level of the ITBS, or even with a level slightly easier than the functional level, tend to be reliable.

Accuracy of Optical Scanning of Test Answer Sheets

Purpose and Procedures. Machine scanning of test answer sheets provides a quick, accurate, and reliable method of handling large volumes of test data. However, any scanning system is subject to some error. This project was undertaken to ascertain the error rate for machine-scanned answer sheets. This information should provide keys to the upgrading of quality control efforts and help to insure fair accounting of test responses.

A stratified, random sample of answer sheets was drawn from the spring 1979 administration of the norm-referenced tests. Reading and mathematics subtest responses were copied by hand for subsequent keypunching. The keypunched responses were edited for correspondence to original responses and then the keypunched responses were compared to those obtained by optical scanning of the answer sheets. A count by test item of the number of disagreements between optically scanned and hand-coded responses was obtained. Mean number of disagreements were calculated for items and subtests for each test level/grade combination.

Results and Recommendations. In general, it was found that the error rate for optically scanned test answer sheets was quite low. That is, it would not typically be expected that students receive an altered score due to machine error. However, some errors were of sufficient magnitude to indicate the need for enhanced quality control efforts. Suggested quality control efforts included promoting greater awareness among teachers, increasing staff size devoted to quality control at the System-wide Testing unit at the Service Center, and the provision of Research and Evaluation staff to operate the optical scanner.

Summary and 1980-81 Testing Schedule

The BOAT, TABS, and norm-referenced tests were implemented as projected. The BOAT administration included 95% of students enrolled in grades 3 and 6; 92% of eighth-grade students were tested. Of the students who had not achieved BOAT mastery, 77% were retested. Approximately 91% of all students enrolled in kindergarten and grades 1 through 11 participated in norm-referenced testing. All details relative to TABS for grades 5 and 9 were conducted with minimum difficulties.

The SWT technical studies provided a necessary framework for proper test implementation and interpretation of test results. It seems appropriate to continue out-of-level testing in grades 2 through 8. In order to provide consistent and improved testing procedures, on a

District-wide basis, it is imperative that the communication link between school test coordinators, principals and SWT be strengthened.

1980-81, Testing Schedule

The System-wide Testing Schedule, 1980-81, was approved and disseminated in early August 1980. This schedule represented an effort to use the results discussed in this report for making informed decisions in improving the SWT. It was also significant that consideration was given toward administering the major group tests at reasonable and appropriate time intervals during the school year. As mandated by Texas Law, the TABS will be administered to all eligible third- , fifth- , ninth- , and tenth-grade students in February 1981. Recognizing this required testing at grades 3 and 5, levels 3 and 6 of the BOAT will not be administered. Level 8-12 of the BOAT will be administered to twelfth-grade students in April 1981; other students in grades 8 through 11 will take the BOAT in May 1981. As in recent years, students in kindergarten and grades 1 through 11 will participate in norm-referenced testing during the spring. Certain criterion-referenced tests will be available as needed for determining student learning growth and needs relative to the Baseline Curriculum. The testing schedule was delineated according to school/grade levels: K-3, 4-6, 7-8, and 9-12. Schedules for release of 1979-80 and 1980-81 test reports were also included.

1979-80 System-wide Testing Reports

Alexander, C. R. *System-wide Testing Schedule, 1979-80*, August 1979.

Alexander, C. R. *System-wide Testing Schedule, 1980-81* (ST80-500-31-05), June 1980.

Alexander, C. R., Hardi, W., Burns, J. I., and Miller, J. *Implementation of Major Group Testing Programs* (ST80-503-31-05), November 1980.

Alexander, C. R., Hardi, W., and Miller, J. *Documentation and Evaluation of System-wide Special Services* (ST80-501-31-05), November 1980.

Burns, J. I. *Documentation and Evaluation of Standardized Testing Procedures* (ST80-506-31-05), November 1980.

Curry, A. R. *Development of Procedures for Assigning Test Levels* (ST80-505-31-05), November 1980.

Curry, A. R. *Equating of Forms 5 and 7 of the Iowa Tets of Basic Skills* (ST80-510-31-05), November 1980.

Curry A. R. *Equating of the Iowa Tests of Educational Development and the Tests of Achievement and Proficiency* (ST80-511-31-05), November 1980.

Curry, A. R. *Evaluation of the Accuracy of Optical Scanning of Test Answer Sheets* (ST80-507-31-05), November 1980.

Meier, J. A. *An Interpretive Analysis of System-wide Achievement Data, 1979-80, Volume II; Basic Objectives Assessment Tests* (RE80-800-61-30), November 1980.

Miller, J. M. *Study of Reporting Systems for System-wide Test Results* (ST80-513-31-05), November 1980.

Riegel, N. B. *A Study of the Assignment of Test Levels for Out-of-Level Testing* (ST80-514-31-12), November 1980.

Sheehan, D. S. and Anthony, S. *A Report of the Texas Assessment of Basic Skills, 1980* (TD80-460-31-31), June 1980.

Appendix

Projected Release Date:
May 1980

SAMPLE

Group Summary

Basic Objectives Assessment Tests (Level 8-12)

With the exception of the last total, this report contains those students tested during the 1979-80 school year.

School: Dallas Middle

Grade Level: 8,9,10, or 11
Date Tested:
School T.E.A.:

	Functional Application*							
	Con	Com	Med	Hom	Emp	Gov	Inf	Total
Number of Test Items	25	30	15	20	10	15	10	125
Number of Students Tested	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Mean Raw Score	xx	xx	xx	xx	xx	xx	xx	xxx
Median Raw Score	xx	xx	xx	xx	xx	xx	xx	xxx
Percentage of students correctly answering 0% - 24%	xx	xx	xx	xx	xx	xx	xx	xxx
Percentage of students correctly answering 25% - 49%	xx	xx	xx	xx	xx	xx	xx	xxx
Percentage of students correctly answering 50% - 69%	xx	xx	xx	xx	xx	xx	xx	xxx
Percentage of students correctly answering 70% - 100%	xx	xx	xx	xx	xx	xx	xx	xxx ← Total passed 1979-80
Percentage of students who have passed the BOAT in this year or in any previous year →								xxx

*Con-Consumerism
Com-Community

Med-Medical
Hom-Home

Emp-Employment
Gov-Government

Inf-Information Sources

SAMPLE

Projected Release Date:
May 1980
Update Release:
September 1980

SYSTEM WIDE TESTING PROGRAM

CLASS LISTING OF STUDENT SCORES

BASIC OBJECTIVES ASSESSMENT TESTS - LEVEL 8-12
REPORT OF STUDENTS TESTED 1979-80 SCHOOL YEAR

GRADE LEVEL: 9
DATE TESTED:

SCHOOL: DALLAS HIGH SCHOOL

	#ITEMS		25	30	15	20	10	15	10	125	
ID NUMBER	STUDENT NAME	SCORES REPORTED	CON	COM	MED	HOME	EMP	GOV	INF	TOTAL	PASS/FAIL
384726	Doe, Mars	#RIGHT	016	023	011	012	007	007	007	083	FAILED
		%RIGHT	064	077	073	060	070	047	070	066	
376457	Flo, Rich	#RIGHT	017	021	013	015	008	008	007	089	PASSED
		%RIGHT	068	070	087	075	080	053	070	071	

LEGEND FOR SUBTESTS:
CON - CONSUMERISM
COM. - COMMUNITY
HOM - HOME
MED - MEDICAL
EMP - EMPLOYMENT
GOV - GOVERNMENT
INF - INFORMATION SOURCES

Projected Release Dates:
May 1980
September 1980

BASIC OBJECTIVES ASSESSMENT TEST
STUDENT CUMULATIVE RECORD LABEL

BASIC OBJECTIVE ASSESSMENT TESTS
Blow, Jane
ID NUMBER 184737 BIRTH DATE 7-23-65

Grade		Con	Com	Med	Home	Emp	Gov	Inf	Total	BOAT
8	Pct Corr	080	067	093	080	080	087	090	080	PasseJ

Date Tested 1-3-79 Blow, Jane

dallas independent school district

814-24

SAMPLE

Projected Release Date: May 1980

GRADES 8-12

STUDENT'S REPORT OF BOAT SCORES

A NO.: xxx
CHOOL: xxxxxxxxxxxxxxxxxx

DATE TESTED: xx/xx/xx
TEACHER: xxxxxxxxxxxxx xxxxxxxx

AME: xxxxxxxxxxxxxx xxxxxxxxx
#: xxxxxx
ADE: xx

is is a record of your scores for the Basic Objectives Assessment Tests(BOAT). The scores are the percentage items that you answered correctly in each section of the test and the total test. An explanation of the test tions may be found on the back of this report.

PERCENTAGE OF ITEMS CORRECT

43 %	27 %	61 %	72 %	81 %	36 %	15 %	62 %
Consumerism	Community	Medical	Home	Employment	Government	Information Sources	Total Test

TO PASS THE TEST YOU NEED A SCORE OF 70% FOR THE TOTAL TEST.

YOU HAVE FAILED THE BOAT; ASK YOUR SCHOOL COUNSELOR FOR ADVICE.

ONT OF FORM →

EXAMPLE FOR STUDENT THAT FAILED THE BOAT.
FORM FOR GRADES 8-12.

K OF FORM →

The BOAT measures skills and knowledge that are needed in everyday life.

The seven subsections of the BOAT are:

1. Consumerism: to exchange money for goods and services of an appropriate quality and usefulness.
2. Community: to use to advantage the services and systems of a municipality.
3. Medical: to care for the health of one's family and self.
4. Home: to establish the comfort, safety and security of one's residence.
5. Employment: to be able to obtain and hold an appropriate level of employment.
6. Government: to deal effectively with the requirements and regulations imposed by government agencies.
7. Information Sources: to identify, obtain and use to advantage information available from private and public sources.

SAMPLE GRADES 8-12 Projected Release Date: May 1980

STUDENT'S REPORT OF BOAT SCORES

TEA NO.: XXX
SCHOOL: XXXXXXXXXXXXXXXXXXXX
DATE TESTED: XX/XX/XX
TEACHER: XXXXXXXXXXXXXXXXXXXX

NAME: XXXXXXXXXXXXXX XXXXXXXXX
ID #: XXXXXX
GRADE: XX

This is a record of your scores for the Basic Objectives Assessment Tests(BOAT). The scores are the percentage of items that you answered correctly in each section of the test and the total test. An explanation of the test sections may be found on the back of this report.

PERCENTAGE OF ITEMS CORRECT

67%	75%	81%	53%	91%	95%	89%	78%
Consumerism	Community	Medical	Home	Employment	Government	Information Sources	Total Test

TO PASS THE TEST YOU NEED A SCORE OF 70% FOR THE TOTAL TEST.

YOU HAVE PASSED THE BOAT.

FRONT OF FORM

EXAMPLE FOR STUDENT THAT PASSED THE BOAT.

FORM FOR GRADES 8-12

BACK OF FORM

The BOAT measures skills and knowledge that are needed in everyday life.

The seven subsections of the BOAT are:

1. Consumerism: to exchange money for goods and services of an appropriate quality and usefulness.
2. Community: to use to advantage the services and systems of a municipality.
3. Medical: to care for the health of one's family and self.
4. Home: to establish the comfort, safety and security of one's residence.
5. Employment: to be able to obtain and hold an appropriate level of employment.
6. Government: to deal effectively with the requirements and regulations imposed by government agencies.
7. Information Sources: to identify, obtain and use to advantage information available from private and public sources.

SAMPLE

Projected Release Date: August 1980
Updates: As Requested

SYSTEM WIDE TESTING PROGRAM

CLASS LISTING OF STUDENT SCORES

METROPOLITAN READINESS TESTS
LEVEL II

SCHOOL: DALLAS ELEMENTARY
TEACHER:
SOC. SEC. NO.:

GRADE LEVEL: K
DATE TESTED:
SCHOOL T. E. A.:

BASED ON NATIONAL NORMS

ID NUMBER	STUDENT NAME	SCORES REPORTED	BEGIN CON	LETTER CORRES	VISUAL MATCH	PATTERNS	SCHOOL LANG	LISTENING	QUANT CON	QUANT OPER	AUDIT TOTAL	VISUAL TOTAL	LANG TOTAL	QUANT TOTAL	PRE-READ TOTAL	PRE-READ %ILE	BATT TOTAL %ILE
		#Items	18	16	10	16	9	9	9	15	29	26	18	24	73		
643725	Doe, Joe	#RIGHT	02	03	07	10	07	04	02	05	05	17	11	07	33	18	14
		STAN									1	5	4	2	3		
		Pr. Rt.									LO	AV	AV	LO	LO		
674894	Doe, John	#RIGHT	13	15	09	12	08	06	03	10	28	21	14	13	63	82	70
		STAN									8	6	6	4	7		
		Pr. Rt.									HI	AV	AV	AV	HI		

LEGEND FOR SCORES AND SUBTESTS: Performance Rating (Pr. Rt.) High (HI): STANINE (STAN.) 7,8,9
AVERAGE (AV): STANINE (STAN.) 4,5,6
LOW (LO): STANINE (STAN.) 1,2,3
%ile = PERCENTILE RANK

BEGIN CON = BEGINNING CONSONANTS
LETTER CORRES = SOUND LETTER CORRESPONDENCE
VISUAL MATCH - VISUAL MATCHING
PATTERNS = FINDING PATTERNS
SCHOOL LANG - SCHOOL LANGUAGE

LISTENING = LISTENING SKILLS
QUANT CON. = QUANTITATIVE CONCEPTS
QUANT OPER = QUANTITATIVE OPERATIONS
AUDIT = AUDITORY

Projected Release Date: October 1980

METROPOLITAN READINESS TESTS

STUDENT CUMULATIVE RECORD LABELS

NPR = National Percentile Rank

METROPOLITAN READINESS TESTS

Blow, Joe

ID NUMBER 625522 BIRTH DATE 1/15/73

Grade	Form	Level	Auditory	Rhyming (1)	Visual	Language	Pre Reading Composite	Composite Percentile	[illegible]	Total Percentile(2)
K	P	2	HI		AV	AV	AV	59	AV	58
								NPR		NPR

DATE TESTED 3/26/79 Blow, Joe

dallas independent school district

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SAMPLE

Projected Release Date: August 1980
Updates: As Requested

SCHOOL: DALLAS ELEMENTARY

SYSTEM WIDE TESTING PROGRAM

CLASS LISTING OF STUDENT SCORES

IOWA TESTS OF BASIC SKILLS (PRIMARY BATTERY)

GRADE LEVEL: 1,2, or 3
DATE TESTED:
SCHOOL T. E. A.:

LEGEND FOR SCORES: G.E. = GRADE EQUIVALENT, LPR* = LARGE CITY PERCENTILE RANKS, NPR = NATIONAL PERCENTILE RANK

ID NUMBER	STUDENT NAME	SCORES REPORTED	VOCAB	WORD ANAL	READ	SPELL	MATH CONC	MATH PROB	MATH COMP	MATH TOTAL	COMPOS
700000	Doe, John	G.E.	3.1	3.8	3.4	3.5	2.8	2.7	2.9	2.8	3.3
	06/01/72 Level 8	LPR	67	89	74	68	50	46	59	50	65
	Tested in Grade 2	NPR	35	66	60	52	41	32	40	35	50

LEGEND FOR SUBTESTS:
VOCAB = VOCABULARY
WORD ANAL = WORD ANALYSES
READ = READING
SPELL = SPELLING
MATH CONC = MATH CONCEPTS
MATH PROB = MATH PROBLEMS
MATH COMP = MATH COMPUTATION
MATH TOTAL = MATHEMATICS TOTAL
COMPOS = BATTERY COMPOSITE

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dallas independent school district

SAMPLE

Projected Release Date:
August 1980
Updates: As Requested

SYSTEM WIDE TESTING PROGRAM

CLASS LISTING OF STUDENT SCORES

IOWA TESTS OF BASIC SKILLS (MULTILEVEL BATTERY)

GRADE LEVEL: 3,4,5,6,7, or 8
DATE TESTED:
SCHOOL T. E. A.:

SCHOOL: DALLAS 4-6 CENTER

LEGEND FOR SCORES: G.E. = GRADE EQUIVALENT, LPR = LARGE CITY PERCENTILE RANKS, NPR = NATIONAL PERCENTILE RANK

ID NUMBER	STUDENT NAME	SCORES REPORTED	VOCAB	READ	SPELL	CAPT	PUNC	USAGE	VIS MAT	REF MAT	MATH CONC	MATH PROB	MATH COMP	LANG TOTAL	W.S. TOTAL	MATH TOTAL	COMPOS
700001	Doe, Joan	G.E.	7.2	6.8	5.7	5.0	5.2	5.0	7.2	7.0	6.2	5.9	6.0	5.2	7.1	6.0	6.4
	06/01/69 Level 11	LPR	80	70	48	34	38	36	78	75	58	52	56	38	79	55	63
	Tested in Grade 5	NPR	70	65	40	28	30	30	72	65	50	40	50	30	65	48	58

LEGEND FOR SUBTESTS:

VOCAB = VOCABULARY
READ = READING
SPELL = SPELLING
CAPT. = CAPITALIZATION
PUNC. = PUNCTUATION
USAGE = LANGUAGE USAGE
VIS. MAT. = VISUAL MATERIALS
REF. MAT. = REFERENCE MATERIALS

MATH CONC = MATH CONCEPTS
MATH PROB = MATH PROBLEMS
MATH COMP = MATH COMPUTATION
LANG TOTAL = LANGUAGE TOTAL
W.S. TOTAL = WORK STUDY TOTAL
MATH TOTAL = MATHEMATICS TOTAL
COMPOS.= COMPOSITE

814-29

Projected Release Date:
October 1980

IOWA TESTS OF BASIC SKILLS

STUDENT CUMULATIVE RECORD LABELS

LPR = Large City Percentile, NPR = National Percentile

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IOWA TESTS OF BASIC SKILLS
Blow, Jane
ID NUMBER 527063 BIRTH DATE 7-25-71

GRADE	LEVEL	FORM	EDITION
2	8	5	B

DATE TESTED 3-27-79

ITBS
Blow, Jane
ID NUMBER 527063

SCORES REPORTED	V VOCABULARY	WA (P) WORD ANALYSIS	R READING	LANGUAGE	W TOTAL (L) WORK STUDY	M TOTAL MATHEMATICS	C COMPOSITE
LPR	75	96	85	94		99	99
NPR	67	89	74	84		96	92

IOWA TESTS OF BASIC SKILLS
Blow, Joe
ID NUMBER 528608 BIRTH DATE 3-23-68

GRADE	LEVEL	FORM	EDITION
5	11	5	L

DATE TESTED 3/27/79

ITBS
Blow, Joe
ID NUMBER 528608

SCORES REPORTED	V VOCABULARY	WA (P) WORD ANALYSIS	R READING	L TOTAL LANGUAGE	W TOTAL (L) WORK STUDY	M TOTAL MATHEMATICS	C COMPOSITE
LPR	92		94	78	87	89	93
NPR	89		85	66	78	74	80

dallas independent school district

SAMPLE

SYSTEM WIDE TESTING PROGRAM

CLASS LISTING OF STUDENT SCORES

SCHOOL: DALLAS HIGH SCHOOL

Projected Release Date:
August 1980
Updates: As Requested

Tests of Achievement and Proficiency

GRADE LEVEL: 9,10, or 11
DATE TESTED
SCHOOL T. E. A.:

LEGEND FOR SCORES: SS = STANDARD SCORE, LPR = LARGE CITY PERCENTILE RANKS, NPR = NATIONAL PERCENTILE RANKS

ID NUMBER	STUDENT NAME	SCORES REPORTED	READ COMP	MATH	WRITT EXPR	USE SOURCE	SOC. ST.	SCI.	BATT COMP
700011	Blow, Jane								
	7/18/64 Level 15	SS	170	177	200	164	150	187	175
	Tested in Grade 9	LPR	51	64	86	42	22	76	60
		NPR							

LEGEND FOR SUBTESTS:
COMP. = READING COMPREHENSION
MATH = MATHEMATICS
WRITT. EXPR. = WRITTEN EXPRESSION
USE SOURCE = USING INFORMATION SOURCES
SOC. ST. = SOCIAL STUDIES
SCI. = SCIENCE
BATT. COMP.= COMPOSITE SCORE

Projected Release Date:
October 1980

Labels may be removed
from backing by lifting at either end

TESTS OF ACHIEVEMENT AND PROFICIENCY
STUDENT CUMULATIVE RECORD LABELS

SCHOOL Dallas High School

TESTS OF ACHIEVEMENT & PROFICIENCY(TM)	Grade	Level	Form	Edition	Percentile	Reading	Mathematics	Written Expression	Using Sources	Social Studies	Science	Composite	
Blow, Jane	9	15	T	L	LPR	51	64	86	42	22	76	60	Jane
ID NUMBER 700011 BIRTH DATE 7/18/64	DATE TESTED 4/30/80				NPR	43	51	75	31	18	59	51	Blow

LPR = Large City Percentile, NPR = National Percentile

dallas independent school district

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SAMPLE

PROCESSING DATE: 09/04/80

STUDENT INSTRUCTIONAL SKILLS ANALYSIS

Projected Release Date: October 1980

TEACHER:
SOC.SEC.NO. :
TEST DATE: 04/21/80

IOWA TEST OF BASIC SKILLS

LEVEL - 10

SCHOOL : JULIUS DORSEY ELEM S
T.E.A. : 137
TOTAL STUDENTS: 11

Percent Items Correct

		REFERENCE MATERIALS																		MATH CONCEPTS											
		A			C			I			D			E			R			N			W			F			G		
STUDENT NAME	GD	NUMBER ITEMS ATTEMPTED	NUMBER ITEMS CORRECT	PERCENT ITEMS CORRECT*	NUMBER ITEMS ATTEMPTED	NUMBER ITEMS CORRECT	PERCENT ITEMS CORRECT*	NUMBER ITEMS ATTEMPTED	NUMBER ITEMS CORRECT	PERCENT ITEMS CORRECT*	NUMBER ITEMS ATTEMPTED	NUMBER ITEMS CORRECT	PERCENT ITEMS CORRECT*	NUMBER ITEMS ATTEMPTED	NUMBER ITEMS CORRECT	PERCENT ITEMS CORRECT*	NUMBER ITEMS ATTEMPTED	NUMBER ITEMS CORRECT	PERCENT ITEMS CORRECT*	NUMBER ITEMS ATTEMPTED	NUMBER ITEMS CORRECT	PERCENT ITEMS CORRECT*	NUMBER ITEMS ATTEMPTED	NUMBER ITEMS CORRECT	PERCENT ITEMS CORRECT*	NUMBER ITEMS ATTEMPTED	NUMBER ITEMS CORRECT	PERCENT ITEMS CORRECT*	NUMBER ITEMS ATTEMPTED	NUMBER ITEMS CORRECT	PERCENT ITEMS CORRECT*
XXXXXXX XXXXX	06	8	6	75	7	4	57	4	0	0	0	0	0	0	0	0	7	4	57	7	2	22	6	2	22	2	0	0	4	2	29
XXXXXXX XXXXX	06	8	4	50	7	0	0	8	2	25	9	2	22	5	3	60	7	1	14	9	4	44	9	5	56	4	2	50	7	3	43
XXXXXXX XXXXX	06	8	6	75	7	5	71	8	4	50	9	2	22	5	1	20	7	4	57	9	5	56	9	6	67	4	3	75	7	3	43
XXXXXXX XXXXX	06	8	5	63	4	3	43	0	0	0	0	0	0	0	0	0	7	4	57	7	4	44	6	3	33	2	1	25	4	1	14
XXXXXXX XXXXX	06	8	7	88	7	2	29	4	2	25	0	0	0	0	0	0	7	5	71	9	5	56	9	2	22	4	2	50	7	2	29
XXXXXXX XXXXX	06	8	2	25	7	0	0	8	2	25	9	2	22	5	1	20	7	1	14	9	4	44	9	5	56	4	1	25	7	2	29
XXXXXXX XXXXX	06	8	5	63	7	2	29	8	1	13	9	2	22	5	0	0	7	3	43	9	3	33	9	3	33	4	1	25	7	3	43
XXXXXXX XXXXX	06	8	3	38	7	3	43	8	3	38	9	3	33	5	2	40	7	0	0	9	3	33	9	1	11	4	1	25	7	1	14
XXXXXXX XXXXX	06	8	5	63	7	3	43	8	1	13	9	2	22	5	1	20	7	1	14	9	3	33	9	2	22	4	1	25	7	3	43
XXXXXXX XXXXX	06	8	6	75	7	1	14	8	4	50	9	3	33	5	1	20	7	3	43	9	3	33	9	1	11	4	1	25	7	1	14
XXXXXXX XXXXX	06	8	6	75	7	4	57	8	4	50	9	1	11	5	2	40	7	4	57	9	5	56	9	4	44	4	2	50	7	2	29
TOTAL NUMBER ITEMS IN SKILL		8			7			8			9			5			7			9			9			4			7		
PERCENTAGE OF STUDENTS ANSWERING ONE-HALF OR MORE OF THE ITEMS CORRECTLY		82			27			30			0			13			45			27			27			36			0		

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SKILL AREA DESCRIPTIONS:

A - ALPHABETIZING
C - TABLE OF CONTENTS
I - INDEX
D - DICTIONARY
E - ENCYCLOPEDIA
R - GENERAL REFERENCE MATL.
N - NUMERATION
W - WHOLE NUMBERS
F - FRACTIONS
G - GEOMETRY

SAMPLE

Projected Release Date: November 198

STUDENT'S REPORT OF SCORES   REPORTE DE PUNTAJE DEL ESTUDIANTE

METROPOLITAN READINESS TEST

STUDENT NAME :

ID NUMBER :

SCHOOL NAME : JOHN QUINCY ADAMS ELEM SCHO

TEA NUMBER : 101

TEACHER NAME :

CURRENT GRADE : 1

TEST LEVEL : 2

DATE TESTED : 04/22/80

SUBTEST NAME	PERFORMANCE RATING
AUDITORY TOTAL	HIGH
VISUAL TOTAL	HIGH
LANGUAGE TOTAL	AVERAGE
PRE-READING COMPOSITE	HIGH
QUANTITATIVE TOTAL	HIGH
TOTAL TEST	HIGH

This is a record of the above named student's scores for the Metropolitan Readiness Tests (MRT).

The test results are given as high, average, and low ratings that let you compare your child's performance to other children at the same grade level nationally. For example, an average rating means that a child's performance on the MRT is typical for his/her age and grade level. A rating is given for each skill area and for the total test.

Contact your child's teacher for information on each skill area covered by the MRT.

Este documento contiene los resultados del examen (Metropolitan Readiness Test) que recibio el estudiante nombrado arriba.

Hay tres maneras de dar los resultados: "Menos que el Promedio" (Below Average), "Promedio" (Average), y "Sobre el promedio" (Above Average). Con esta manera de informar se pueden comparar los resultados de este estudiante con todos los estudiantes del mismo ano en todas las escuelas de los Estados Unidos. Por ejemplo, una clasificacion de "Promedio" (Average) significa que los resultados del examen son tipicos de la edad y el grado del estudiante. Se da un resultado para cada habilidad para toda la prueba.

Puede ponerse en contacto con el maestro del nino para obtener informacion adicional sobre las habilidades que mide la prueba.

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dallas independent school district

STUDENT'S REPORT OF SCORES REPORTE DE PUNTAJE DEL ESTUDIANTE
IOWA TESTS OF BASIC SKILLS

Projected Release Date: November 1980

SAMPLE

TUDENT NAME :
D NUMBER :
IRTH DATE : 10/18/67
TESTED IN GRADE : 06
TESTED AT LEVEL : 12

TEA NUMBER :
SCHOOL NAME :
CURRENT GRADE : 07
TEACHER NAME :
DATE TESTED : 04/21/80

SUBTEST NAME	National Percentile	BELOW AVERAGE			AVERAGE			ABOVE AVERAGE		
		low	middle	high	low	middle	high	low	middle	high
VOCABULARY	16	-----	-----	-----*						
READING	56	-----	-----	-----	-----	----*				
LANGUAGE TOTAL	30	-----	-----	-----	--*					
SPELLING	25	-----	-----	-----	--*					
CAPITALIZATION	40	-----	-----	-----	-----	----*				
PUNCTUATION	72	-----	-----	-----	-----	-----	----*			
LANGUAGE USAGE	02	---*								
WORK-STUDY TOTAL	19	-----	-----	-----*						
MATHEMATICS TOTAL	54	-----	-----	-----	-----	----*				
COMPOSITE	32	-----	-----	-----	--*					

This is a record of the above named student's scores for the Iowa Tests of Basic Skills (ITBS).

The scores are given as percentiles. A percentile rank of 70 means that a student scored better than 70 percent of students across the nation. Percentiles are given for each subtest and for the total test.

Each score is graphed on the chart. The score indicates if performance is Below Average, Average, or Above Average compared to the performance of students across the nation. A score of 70 would indicate high average performance. A missing score indicates that a section of the test was not completed.

Please remember that these test results are just one of the many ways of looking at student progress. Ask the school for other information about individual progress.

Este documento contiene los resultados del examen (Iowa Tests of Basic Skills) que recibio el estudiante nombrado arriba.

Lo siguiente es un ejemplo. El numero 70 significa que el estudiante obtuvo un resultado mejor que el 70 por ciento de los estudiantes en el pais. Se dan los resultados de todas las pruebas y tambien se da el resultado del total.

Cada resultado aparece en el grafico. El grafico indica si el resultado es "Menos que el Promedio" (Below Average), "Promedio" (Average), O "Sobre el Promedio" (Above Average), cuando se lo compara con los puntajes a traves de todo el pais. Por ejemplo, el puntaje de 70 es un puntaje regular porque esta en el grafico bajo la categoria "Promedio" (Average). Si falta un puntaje, eso indica que esa seccion del examen no fue acabada.

Estos resultados son solamente una de varias maneras para observar el progreso del estudiante. Se puede poner en contacto con la escuela para pedir mas informacion sobre el progreso del estudiante.

THE ITBS MEASURE IMPORTANT BASIC SKILLS THAT ARE NEEDED FOR SUCCESS IN EVERYDAY LIVING. THESE BASIC SKILLS MEASURED BY THE ITBS ARE:
El ITBS mide habilidades basicas e importantes necesarias para suceder de dia en dia. Las habilidades medidas por el ITBS son:

1. VOCABULARY: READ AND KNOW THE MEANING OF WORDS; DEVELOP CONCEPTS.
   Vocabulario: Leer y saber el significado de las palabras; desarrollar los conceptos.
2. WORD ANALYSIS: RELATE SOUNDS AND LETTERS, PHONICS, WORD STRUCTURE.
   Analisis de Las Palabras: Relatar los sonidos y las letras, la fonetica, la construccion de las palabras.
3. READING: UNDERSTAND AND IDENTIFY WORDS, SENTENCES, INFORMATION IN STORIES.
   Leer: Entender e identificar las palabras, las oraciones, la informacion en las historias.
4. LANGUAGE: SPELL, CAPITALIZE, PUNCTUATE, AND USE WORDS CORRECTLY.
   Gramatica: deletrear, capitalizar, puntuar, y usar correcto las palabras.
5. WORK-STUDY SKILLS: READ MAPS, GRAPHS, AND TABLES; ALPHABETIZE; USE AN INDEX, THE DICTIONARY, AND SIMILAR MATERIALS; FIND INFORMATION IN THE LIBRARY.
   Habilidades de Trabajar y de Estudiar: Leer los mapas los mapas graficos; colocar por orden alfabetico; usar un indice, el diccionario, y otras cosas semejantes; encontrar la informacion en la biblioteca.
6. MATHEMATICS: UNDERSTAND THE NUMBER SYSTEM, MATHEMATICAL TERMS AND OPERATIONS; SOLVE PROBLEMS. COMPUTE WHOLE NUMBERS, FRACTIONS AND DECIMALS.
   Matematica: Entender el sistema de numeros, la terminologia matematica, las operaciones matematicas; resolver los problemas, computar los numeros enteros, las fracciones, y los numeros decimales.
7. COMPOSITE: TOTAL SCORE WHICH GIVES A PERCENTILE RANK ON THE COMBINED SUBTESTS.
   Compuesto: Puntaje total que da la clasificacion en percentila los sub-examenes combinados.

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An Interpretive Analysis of the Development of Tests for Instructional Accountability, 1979-80

Robert P. Grobe

The Dallas Independent School District (DISD) has a commitment to develop an Educational Improvement and Accountability System (Principle 4, TEA Accreditation Bulletin). A number of continuing DISD efforts (i.e., baseline curriculum, curriculum development, Grading and Reporting Administrative Regulations, Management/Accountability and Accreditation System, criterion-referenced testing) have related to and focused on this commitment. Thus, many of the components for such a system are now being used. Extensive study and efforts by the Grading and Reporting Task Force suggested that the next step in achieving such a system was to modify (where necessary) and integrate the existing components with increased focus on the testing component. More specifically, efforts need to be coordinated and focused over the next few years on refining and expanding a system for instructional improvement and accountability. These efforts will result in a competency-based education system for the Dallas Independent School District. The system will be referred to as the Baseline Continuum of Instruction (BCI).

Figure 1, which summarizes concerns and efforts of the Grading and Reporting Task Force, presents a schematic representation of BCI. The BCI will require fine-tuning and/or development of at least six components: (a) baseline curriculum/objectives, (b) instructional delivery, (c) criterion-referenced testing, (d) education of staff and community to use the system, (e) scoring and reporting, and (f) controlling and monitoring instructional processes.

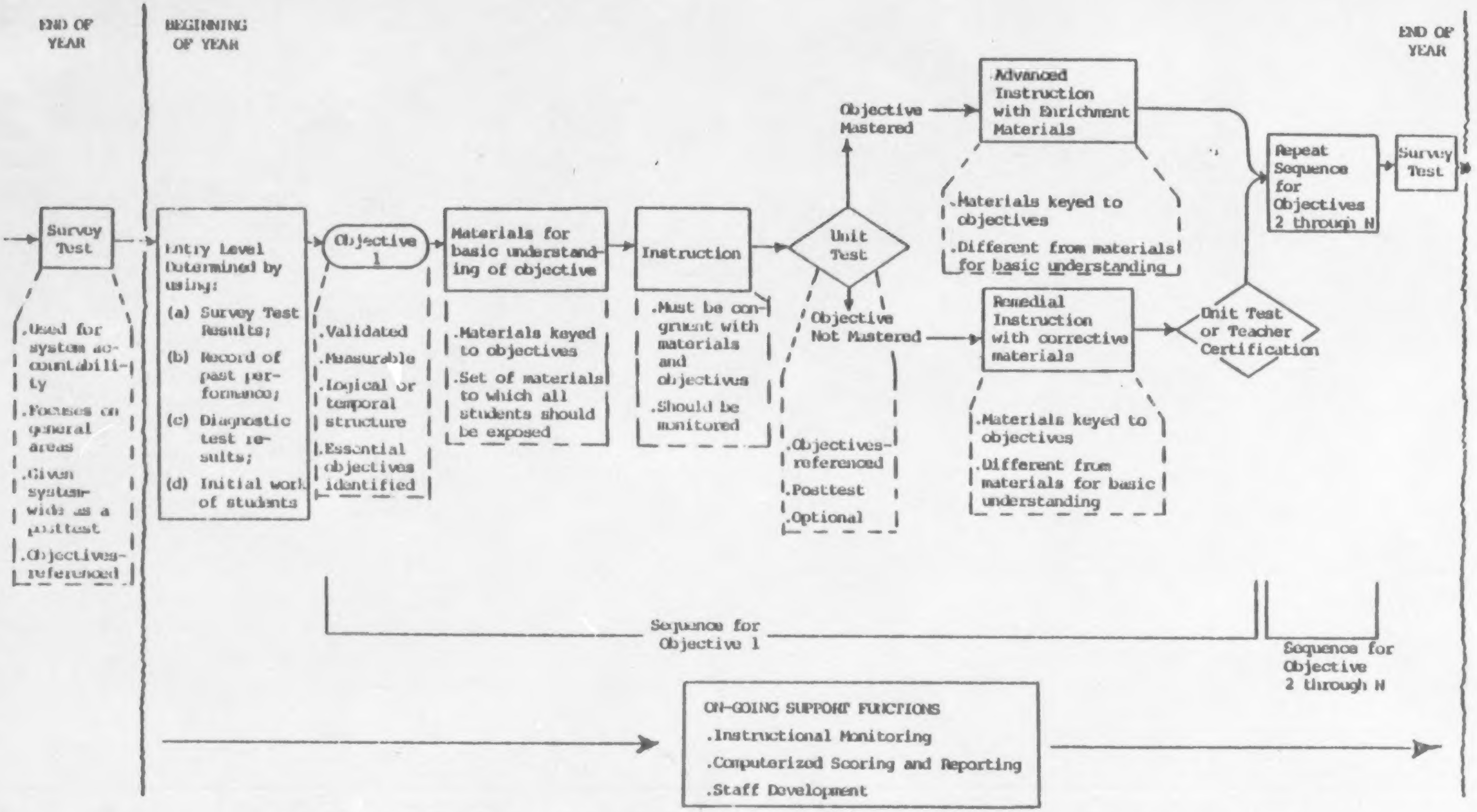

END OF YEAR
BEGINNING OF YEAR
END OF YEAR
Survey Test
.Used for system accountability
.Focuses on general areas
.Given systemwide as a posttest
.Objectives-referenced
Entry Level Determined by using:
(a) Survey Test Results;
(b) Record of past performance;
(c) Diagnostic test results;
(d) Initial work of students
Objective 1
.Validated
.Measurable
.Logical or temporal structure
.Essential objectives identified
Materials for basic understanding of objective
.Materials keyed to objectives
.Set of materials to which all students should be exposed
Instruction
.Must be congruent with materials and objectives
.Should be monitored
Unit Test
.Objectives-referenced
.Posttest
.Optional
Objective Mastered
Objective Not Mastered
Advanced Instruction with Enrichment Materials
.Materials keyed to objectives
.Different from materials for basic understanding
Remedial Instruction with corrective materials
.Materials keyed to objectives
.Different from materials for basic understanding
Unit Test or Teacher Certification
Repeat Sequence for Objectives 2 through N
Survey Test
Sequence for Objective 1
Sequence for Objective 2 through N
ON-GOING SUPPORT FUNCTIONS
.Instructional Monitoring
.Computerized Scoring and Reporting
.Staff Development

Figure 1. Schematic representation of a Continuum of Instruction which includes testing, placement, diagnosis, prescription, instruction, and learning.

The test development efforts of the Research and Evaluation Department, and the purpose of this report, focus on the refinement and development of the criterion-referenced testing component of the BCI. A number of individuals (Glasser, 1963; Popham & Husek, 1969) have for several years been interested in an approach to testing that would provide information necessary for making instructional decisions related to specific objectives or competencies. The type of tests used in this approach are called criterion-referenced tests (CRTs). CRTs are constructed to permit the interpretation of individual (and group) test scores in relation to a set of clearly defined objectives or competencies. Presently, CRTs are being used across the nation to monitor student progress through objectives-based instructional programs, to diagnose student learning deficiencies, to evaluate educational and social action programs, and to assess competencies on various certification and licensing examinations.

In the DISD, criterion-referenced tests will continue to play an important role in the BCI. CRTs will be used to monitor student progress through the baseline objectives, including the attainment of certain objectives which have been identified as promotion/retention standards. CRTs in the form of the Texas Assessment of Basic Skills (TABS) are used to monitor student attainment of basic skills. The Basic Objectives Assessment Test (BOAT), Level 8-12, is used to certify attainment of a minimum level of functional literacy. This certification in conjunction with a functional literacy course is used as a graduation requirement. Three basic test development activities have been in progress during the 1979-80 school year. First, criterion-referenced tests previously developed by the DISD Learning Division were reviewed and assessed.

Second, development began for tests related to the promotion/retention objectives for grades K-3. Third, implementation continued for the Basic Objectives Assessment Tests. Each of these activities will be briefly described in the following sections.

Review and Assessment of Existing Criterion-Referenced Tests Used in DISD

The DISD's Learning Services Department has been working toward a diagnostic-prescriptive instructional program which is based upon a K-12 continuum of mastery objectives. This program includes the monitoring of individual student progress, enrichment and remedial activities, and a comprehensive testing program.

Results

A review and assessment were conducted of existing criterion-referenced tests which are currently in use. This effort was designed to assist Learning Services in refining the criterion-referenced tests. Specific studies focused on (a) the mathematics testing program (Sheehan and Anthony, TD80-453-31-02); (b) the science/health testing program (Melican and Pigford, TD80-457-31-04); and (c) the social studies testing program (Anthony and Sheehan, TD80-459-31-03). Summaries of the three studies are presented in the following paragraphs.

Sheehan and Anthony indicated that the Diagnostic Mathematics Tests (DMTs) have a very acceptable format. Overall, the tests have been prepared in a professional manner. However, several of the tests did exhibit some problems. Some of the tests contained typographical errors. In addition, the results of the assessment indicated that the content validity and the reliability of some of the DMTs could be improved. In their study, Sheehan and Anthony also proposed a placement scheme based upon the instructional objectives of the mathematics program.

Melican and Pigford suggested that the science/health tests were a good first attempt at developing criterion-referenced tests. However, the number of items that were detected as having possible flaws indicated that revisions may be in order. It was also found that some tests did not cover all of the necessary foci; some items covered material not in the baseline; and the reading level of the tests may be too high.

The first part of the study by Anthony and Sheehan was an examination of the social studies baseline objectives for levels 4-6. The purpose was to determine whether each component (i.e., objectives, foci, and ideas) was stated in a consistent form. The committee assigned to examine the three components found some instances in which the objectives, the foci, and the ideas did not match. Efforts were made to correct these inconsistencies by revising the focus statements and their corresponding ideas. In addition, a review of the social studies CRTs for levels 4-6 was conducted. This preliminary examination revealed that a substantial number of items did not reflect the content specified in the focus statements; not all focus statements were represented by the test items; and a number of the items contained technical flaws.

Interpretation

There are many good items contained in the criterion-referenced tests. These items can serve as a pool for construction or revision of future tests. Several of the tests contained some technical flaws. Careful attention needs to be given to the technical aspects of test development in revising the existing tests, as there is a need to improve the reliability and content validity for several of the tests. The information obtained from these reviews will be of great value in the future as criterion-referenced tests are revised and developed.

Test Development Efforts for K-3

To date, efforts to develop criterion-referenced tests (CRTs) have focused upon a subset of K-3 baseline objectives which were identified as promotion/retention standards. The reader should note that future efforts will focus on the development of CRTs to monitor student progress through the other baseline objectives.

Objectives to be used as promotion/retention standards were identified during June 1980. The committee assigned to this task consisted of instructional facilitators from the Learning Services Department and teachers who served as consultants. The process included two major components: (a) subcommittees identified a tentative list of standards and (b) the committee as a whole used a consensus method to arrive at the final list of standards. This effort resulted in the selection of a number of objectives to be used as promotion/retention standards in four content areas: mathematics, language arts, social studies, and science/health.

The promotion/retention standards were used as a basis for developing detailed specifications of what test item content should be and of how test items should look. These detailed specifications are referred to as domain specifications. Example 1 presents an illustration of a domain specification. As noted in Example 1, the domain specifications which were developed contain five sections:

1. General Description. This section lists the objective exactly as it appears in the Baseline. It may contain additional information in one or two sentences which makes the objective clearer.

Example 1. Domain Specification for a Mathematics Objective

Content Area: Mathematics
Level: 3
Objective Number: 105
Domain Specification Number: 1 of 1

General Description

Tell time to 5-minute intervals from a standard clock face and record using standard notation.

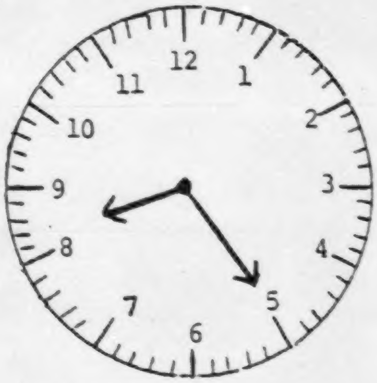
Model Test Item and Directions

Directions (to be read to the student and to appear in the student's test booklet)

For each item below find the time shown on the clock. Fill in the answer space on your answer sheet that has the same letter as your answer.

Test Item (to appear in the student's test booklet)

1.



A.) 5:00 B.) 5:40 C.) 8:25 D.) 9:25

Example 1 (cont'd)

Eligible Test Content

1. A digital clock face will not be used.
2. The shape of the clock face will be round.
3. All hours will be indicated and numbered.
4. Minutes will be indicated but not numbered.
5. Seconds will not be indicated or numbered.
6. Roman numerals will not be used.
7. Only hour and minute hands will be used. There will be a clear distinction between the size of the hour and minute hands.
8. Only a standard twelve-hour clock face will be used.
9. Clock hands may be overlapped (e.g., 12:00).
10. The printed size of the clock face will equal or exceed one inch in diameter.
11. The clock will only indicate time at five-minute intervals (hands must be accurately placed).

Eligible Response Content and/or Scoring Rules

1. There will be four response choices, only one of which is correct.
2. The response choices will be arranged horizontally in ascending order.
3. The response choices will be listed in standard time notation (e.g., 4:25).
4. The incorrect choices will only include 5-minutes (e.g., 1:55), half-hours (e.g., 4:30), and hours (e.g., 4:00).
5. The incorrect choices will represent the most frequent student errors.

Example 1 (cont'd)

Specification Supplement

1. Subskills necessary to tell time to 5-minute intervals from a standard clock face and record using standard notation.
    a. The student should be able to recognize the numerals 1 to 12.
    b. The student should be able to tell time orally.
    c. The student should know the distinction between hour and minute hands.
    d. The student should be able to skip count by fives.
    e. The student should be able to respond on a separate answer sheet.
2. A test measuring this objective should consist of 75% of the items which require the identification of time on five-minute intervals exclusive of hours and half-hours. Twenty-five percent of the items should require the identification of time on the hour or half-hour.

2. Model Test Item(s) and Directions. This section contains one or more model test items, complete with directions on how to respond, which will illustrate the type of items which will be generated by the domain specification.

3. Eligible Test Content. This section describes the rules which item writers must use when writing test items; that is, all of the indispensable elements that item writers must consider in producing test items must be listed in this section.

4. Eligible Response Content and/or Scoring Rules. This section describes (a) rules item writers must use when writing item reponses and/or (b) rules test scorers must use in scoring examinee responses.

5. Specification Supplement. This section includes any additional information which does not fit in any other component.

Results

A committee of sixteen teachers was formed for the purpose of writing domain specifications for each objective identified as a promotion/retention standard. The process used to develop domain specifications started with a training session for the teacher-writers. Next, the group was divided into five subgroups to work on mathematics, language arts, social studies, science/health, and kindergarten. After domain specifications were written by the subgroups, they were reviewed by other subgroups. This effort resulted in a set of domain specifications for each of the five areas. A sample domain specification for mathematics is presented in Example 1.

Future Activities

The next step in the test development effort for the promotion/retention objectives includes a further review of the domain specifications. Then, the domain specifications will be used by writers to develop and write test items. Next, tests will be assembled and pilot tested. Content and measurement specialists will use the pilot test data to judge the technical quality of the test items. Revision and final development activities will follow.

Development of the Basic Objectives Assessment Test

The Basic Objectives Assessment Test (BOAT) is a system-wide testing program by which the Dallas Independent School District (DISD) will guarantee that all graduates have the minimum skills to function effectively in an urban community. The testing program involves three levels of tests: Level 3, Level 6, and Level 8-12.

During the 1979-80 school year, the Department of Research and Evaluation continued implementation activities related to the Basic Objectives Assessment Test. These activities are reported in a series of three reports which focus on (a) the development of alternate test forms of the BOAT (Arrasmith, Montgomery, and Roberts, TD80-450-31-05); (b) the development of a Spanish version to parallel the BOAT for Levels 3 and 6 (Arrasmith and Pigford, TD80-451-31-09); and (c) the development of a plan to establish a record-keeping system for the Basic Objectives Assessment Test (Arrasmith, TD80-452-31-05). In addition, a review of the literature related to testing programs similar to the BOAT (i.e., minimum competency testing) was conducted to identify potential problems that may have occurred in other cities or states (Staff, TD80-456-31-05).

Results and Interpretation

The tests for levels 3 and 6 are scheduled to be eliminated since they so closely parallel the mandatory Texas Assessment of Basic Skills (TABS). Therefore, the focus for this discussion will be on the results related to Level 8-12 of the BOAT. Ratings of the BOAT objectives indicated that both the instructional and community samples were supportive of the test content. The different test forms have undergone a rigorous evaluation. This evaluation has resulted in revisions of test items and alternative forms of the test which are reliable and valid measures. Data related to setting a standard for use as a graduation requirement support the 70% standard presently used with the BOAT, Level 8-12. However, additional data need to be gathered with regards to the impact this standard will have on the District. In this sense, the standard needs to be "norm-referenced" to an acceptable population of competent graduates. The standard of 70% is primarily an expectation for students in the District. Is this expectation reasonable for the District? Political and social consequences of this standard now need to be weighed against this expectation.

In reviewing the literature related to testing programs similar to the BOAT (i.e., minimum competency testing), some interesting information related to legal implications of competency testing was found. In summary, legal problems can occur in three areas: (a) denial of due process, (b) denial of equal protection, and (c) charges of negligence or educational malfeasance.

Vulnerability to successful charges of denial of due process can be reduced by (a) giving adequate notice of intent to require the passing of a minimum competency examination as a requirement for graduation, (b) establishing the reliability and validity of the competency testing instrument, and (c) offering opportunities for remediation to students who fail the examination. Vulnerability to successful charges of denial of equal protection can be reduced by demonstrating nondiscriminatory intent through (a) establishing various measures of test validity and

(b) giving opportunities for remediation to students who fail the examination. Finally, vulnerability to successful charges of negligence or educational malfeasance can be reduced by (a) documenting classroom activities as proof that teaching of specific curricula occurred, (b) documenting test results and remediation for students who failed the test, and (c) making a clear and public statement of exactly what skills, at a minimum, high school students will be expected to possess upon graduation. Implementation of all these suggestions will reduce the likelihood of lawsuits related to competency testing.

Conclusion

As a final note, the reader should remember that developing an objectives-based instructional system which can become the Baseline Continuum of Instruction will require fine-tuning and/or development of at least six components: (a) baseline curriculum/objectives, (b) instructional delivery, (c) criterion-referenced testing, (d) education of staff and community, (e) scoring and reporting, and (f) controlling and monitoring instructional processes. Such a system will be pilot tested and phased into the District program during the next five years. As a part of that effort, test development will also have a five-year phase-in.

Criterion-referenced tests will be developed for use in monitoring student progress through the Baseline objectives. Essential Baseline objectives that students must master before progressing to the next grade level will be identified. The tests will be used to assess and place students along a continuum of Baseline objectives according to their level of performance. Expectations of satisfactory rates of progress will be set District-wide so that students who excel and those who fall behind can be easily identified. Students who fall behind can be provided with immediate corrective instruction. Students who excel can be provided with enrichment activities to stimulate further learning. Thus, the testing component, which is aimed at (a) producing quality (i.e., highly valid and reliable) criterion-referenced tests and test items and (b) a supportive grading and reporting system, is an important component of the instructional improvement effort. The responsibility of the Test Development staff of the Department of Research and Evaluation is to produce the tests and test items necessary for the competency-based educational system.

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Glasser, R. Instructional technology and the measurement of learning outcomes. *American Psychologist*, 1963, *1B*, 519-521.

Popham, W. J., & Husek, T. R. Implications of criterion-referenced measurement. *Journal of Educational Measurement*, 1969, *6*, 1-9.

Additional Information

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An Interpretive Analysis of System-wide Context Data, 1979-80

George H. Olson

The purpose of this report is to summarize context data which appear in a number of System-wide Evaluation reports for the 1979-80 school year. Specifically, the reports summarized here are the following:

1. Special Reports on Pupil Achievement (1979-80),
2. Twelve-year Enrollment Trends: 1968-79,
3. Enrollment Projections for 1980-84,
4. 1979-80 Student Nonattendance Study,
5. 1979-80 Longitudinal Enrollment Study, and
6. 1979 Graduate Follow-up Survey.

Each of these reports contains extensive descriptive data by subdistrict and total District as well as by ethnicity and grade level within schools. In this report only the District-wide highlights of those reports are presented. Those school, subdistrict, and District administrators wishing to glean more detailed information for particular ethnic, grade level, school, and subdistrict classifications are urged to consult the individual reports.

Teachers

Descriptive statistics on a selected set of teacher characteristics were provided in the Special Reports on Pupil Achievement (Whitmore, Meier, Olson, & Marcus, 1980). The statistics reported there are descriptive of the teacher population as of April 1980, a time close to the 1979-80 system-wide test administrations. The District-wide summary statistics for 1978-79 and 1979-80 are reproduced here as Table 1. The table reveals a gain (of 40) in the number of elementary school teachers and a decrease (of 125) in the number of secondary school teachers over the last two years. The percentage distributions by sex, ethnicity, level of education, teaching experience, and age did not change appreciably over the two years.

Pupil/teacher ratios are also presented in Table 1. Here, "teachers" included only those individuals identified as having a primary responsibility for classroom teaching, with the exception of special education teachers. "Pupils" included all pupils, with the exception of special education students other than those identified as being mainstreamed, speech-impaired, or pregnant. As can be seen, the pupil/teacher ratios in both elementary and secondary schools showed a slight decline in the number of pupils per teacher from 1978-79 to 1979-80. It is worth noting that the numbers of teachers bilingual in Spanish increased appreciably from 1978-79 to 1979-80 (14% in elementary schools; 12% in secondary schools).

Finally, Table 1 displays the number of sick days used per teacher through 1 April 1980. As can be seen, these figures are very low. It should be pointed out, however, that these figures do not include teacher absenteeism for personal business, professional development, or unauthorized leave of any sort.

Enrollment Trends

Enrollment statistics by quarter and ethnicity for the 1978-79 and

Table 1

Summary Statistics on Selected Teacher Characteristics for Elementary and Secondary School Teachers

	Elementary		Secondary	
	1978-79	1979-80	1978-79	1979-80
Number of Teachers	3251	3291	3234	3109
Ethnic Percentages				
% White	62	62	65	64
% Black	31	31	31	31
% Hispanic	7	7	4	4
% Other	0	0	0	1
Educational Level				
% No Degree	0	0	2	2
% Bachelor	56	54	49	47
% Master	44	45	48	50
% Doctorate	0	0	1	1
Experience				
% 0-5 years	39	37	35	32
% 6-10 years	20	21	25	25
% 11-15 years	15	16	17	18
% 16-20 years	10	10	10	12
% 21-40 years	17	16	13	13
Median	8	8	8	9
Age				
Less than 26	11	10	7	6
26-35	38	38	41	39
36-45	21	22	27	29
46-55	17	18	17	17
56-65	10	10	8	9
Over 65	2	2	1	1
Median	36	36	36	37
Pupil/Teacher Ratio	23.4	22.8	19.1	18.8
No. Bilingual (Spanish)	220	251	77	86
Average Sick Days Used	1.2	1.3	1.0	1.1

1979-80 school years are presented by grade level for each school and subdistrict in the Special Reports on Pupil Achievement (Whitmore, Meier, Olson, & Marcus, 1980). A District-wide summary of enrollment by quarter and enrollment by ethnicity is presented in Table 2. Two things are obvious from this table. First, enrollment, both total and within ethnic classifications (except Asian and Hispanic) has declined over the past two years, and second, enrollment declined steadily throughout each school year.

The more recent decline in enrollment is best viewed in the perspective of District enrollment trends over several years as shown in Figure 1. The figure is based on data taken from the twelve-year enrollment trends report (Berry & Meier, 1980a) and graphs District enrollment for each of the school years, 1968-69 through 1979-80. Also shown are the yearly enrollments for K-3, 4-6, 7-8, and 9-12 grade-level configurations. Over the period examined, District enrollment can be seen to have reached a peak of about 165,000 students in 1970-71 and to have declined steadily, if moderately, ever since. This general trend, however, appears to have slackened over the past two years.

While the overall picture is one of declining District enrollment, this is not the case when individual ethnic classifications are considered separately, as has been done in Figures 2-5. These figures show that, at least until quite recently, the decline in District enrollment was almost entirely due to an even greater relative decline in White student enrollment. Thus for each of the four grade-level configurations considered, Black and Hispanic student enrollment, with only few exceptions, either held constant or increased over years.

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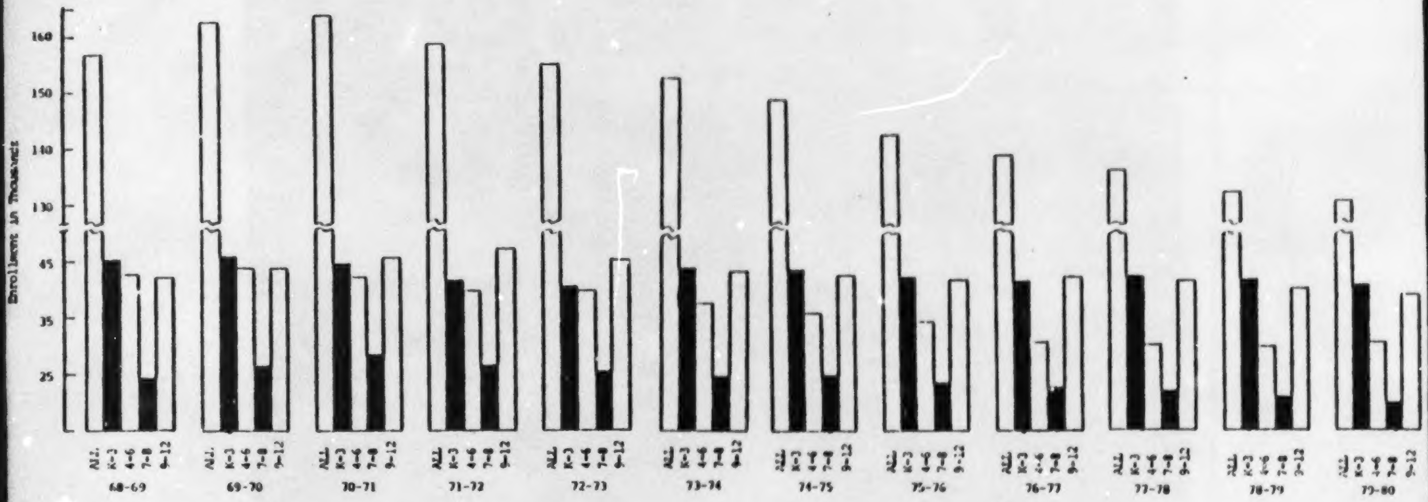
Table 2

District-wide Enrollment by Quarter and by Ethnicity for 1978-79 and 1979-80

Enrollment by End of Quarter		
	1978-79	1979-80
Quarter 1	134077	131320
Quarter 2	133645	130751
Quarter 3	131324	128692
ADM[a]	132394	130794
Enrollment by Ethnicity		
White	44758 (33.5%)	41615 (31.8%)
Black	65635 (49.1%)	64631 (49.4%)
Hispanic	21879 (16.4%)	22834 (17.5%)
American Indian	504 (0.4%)	450 (0.3%)
Asian	866 (0.6%)	1220 (0.9%)

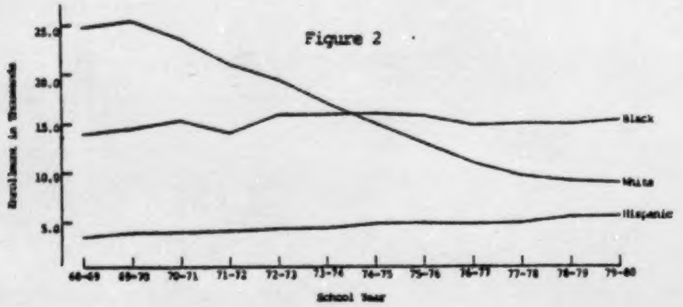
[a] ADM (Average Daily Membership) is an index of the average number of students enrolled on any given day throughout the school year.

Figure 1



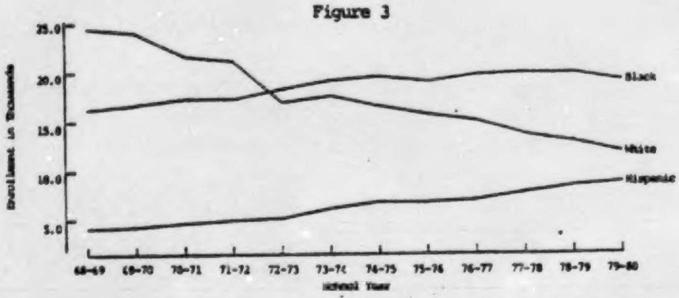
Twelve-year Enrollment Trends for the Total District
and Different Grade-level Configurations

Figure 2



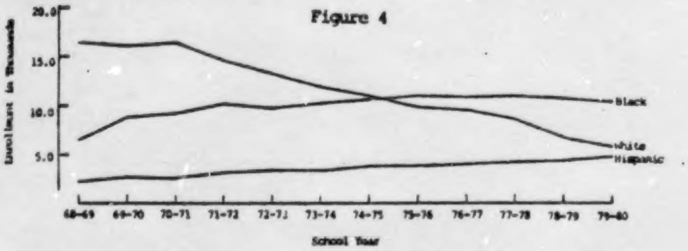
Enrollment Trends for Grades K-3 1968-69 to 1979-80

Figure 3



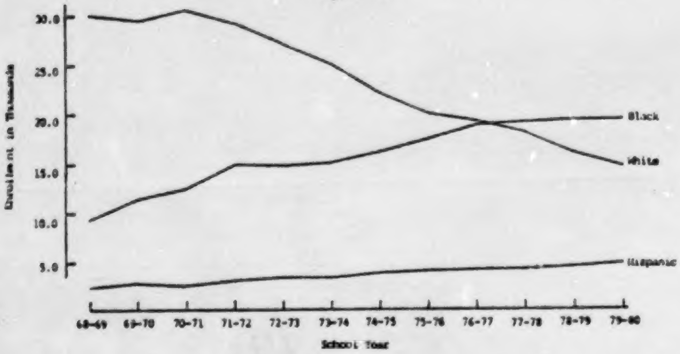
Enrollment Trends for Grades 4-6 1968-69 to 1979-80

Figure 4



Enrollment Trends for Grades 7-8 1968-69 to 1979-80

Figure 5



Enrollment Trends for Grades 9-12 1968-69 to 1979-80

Although it is not the intention in this report to give detailed attention to subdistricts, referring to the enrollment trends report (Berry & Meier, 1980a) would quickly reveal that the decline in enrollment has been greatest in the Northwest and Northeast Subdistricts at the K-3, 4-6, and 7-8 grade levels, and in the Southeast Subdistrict at the 4-6 and 9-12 grade levels. Furthermore, while White enrollment declined at a fairly high rate in all subdistricts, Black enrollment has increased most markedly in the Southwest Subdistrict (from 1,000% to 4,000% in different grade-level configurations). Large increases in Black enrollment have also been evident in the Northeast and Southeast Subdistricts. Hispanic enrollment has increased by 100% to 400% in the Northeast, Southeast, and Southwest Subdistricts.

Enrollment Projections

The enrollment trend data were also used in a study to project District and subdistrict enrollments through the 1984-85 school year (Berry & Meier, 1980b). It should be noted that an important historical event, the opening of DISD schools to undocumented residents in 1980-81, has already significantly altered enrollment patterns within the District. The enrollment of the undocumented residents, of course, could not be predicted. Therefore, enrollment projections reported herein, taken from Berry and Meier (1980b), do not include the increases in total District population, nor increases in any ethnic subpopulation, resulting from the enrollment of undocumented residents. Percentage changes in the District's total population and the subpopulation of Hispanics are most certainly underestimated.

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Exclusive of the enrollment of undocumented residents, the District's total enrollment is projected to be 6.7 percent less in 1984-85 than the enrollment for 1979-80. Whereas the 1979-80 student ethnic composition was 32% White, 49% Black, and 17% Hispanic, in 1984-85 it is projected to be 24% White, 51% Black, and 24% Hispanic. Furthermore, only Hispanic enrollment is expected to increase District-wide. Again, it should be emphasized that the projections do not account for undocumented residents.

Projected percentage changes in enrollment by subdistrict and ethnicity are shown in Table 3. Declines in White enrollment are projected for all subdistricts. Black enrollment is projected to decline in the Northwest and Northeast Subdistricts and in East Oak Cliff, to increase slightly in the Southeast Subdistrict, and to increase markedly in the Southwest Subdistrict. Hispanic enrollment, other than undocumented residents, is projected to increase in all subdistricts, most notably in the Southwest Subdistrict.

Changes in Student Population

While enrollment trends show changes in net enrollment over years, they do not reflect the amount of turnover in the student population over those years; that is, they do not provide information on the migration of students into and out of the District. The results of an investigation of this phenomenon were reported in a document titled, The 1979-80 Longitudinal Enrollment Study (Marcus & Julian, 1980a), and are summarized here in Table 4. This table displays the percentages of students lost and gained by the District over three years at grade levels 1-3 and 4-6, two years at grade levels 7-8, and four years at grade levels 9-12. In each case the percent of students lost is relative to

Table 3

Projected Percentage Changes in Enrollment from 1979-80 to 1984-85

	Subdistrict				
	NW	NE	SE	SW	EOC
White					
All Grades	-38	-26	-20	-39	-26
K-3	-39	-29	-27	-39	---[a]
4-6	-35	-27	-12	-40	---
7-8	-34	-14	-13	-34	---
9-12	-40	-27	-22	-41	---
Black					
All Grades	-24	-24	7	37	-10
K-3	-30	-21	- 6	35	-11
4-6	-17	-24	3	44	-11
7-8	- 7	-22	14	54	-13
9-12	-28	-26	20	24	- 4
Hispanic					
All Grades	11	22	19	45	15
K-3	10	27	29	48	23
4-6	21	28	-27	44	17
7-8	21	28	10	41	-17
9-12	- 7	8	4	41	28
All Races					
All Grades	-19	-17	- 5	17	- 9
K-3	-18	-15	-13	20	- 9
4-6	-11	-16	- 2	19	-11
7-8	- 8	-10	1	25	-14
9-12	-30	-22	- 3	7	- 4

Note. Changes resulting from the enrollment of undocumented residents in 1980-81 are not reflected in the projections presented in the table.

[a] The numbers of White students by grade-level configuration are too small to make enrollment projections reliable.

Table 4

Population Changes in Selected Grade Level Cohorts over Years

	Enrollment		Percent		
	Base Year	Spring '80	Lost	Gained	Change
Grade 1 - Grade 3 (Fall 1977 - Spring 1980)					
White	3657	3465	43.75	40.63	- 5.25
Black	4595	5376	18.06	29.95	16.97
Hispanic	2033	2282	28.23	36.06	12.25
All Races	10285	11120	29.21	34.54	8.14
Grade 4 - Grade 6 (Fall 1977 - Spring 1980)					
White	3768	3094	43.66	31.38	-17.89
Black	4989	5016	15.49	15.93	.52
Hispanic	1749	1796	22.53	24.55	2.69
All Races	10507	9906	26.77	22.32	- 5.72
Grade 7 - Grade 8 (Fall 1978 - Spring 1980)					
White	3248	3130	30.14	27.48	- 3.66
Black	5086	5178	11.77	12.67	1.03
Hispanic	1670	1652	19.88	19.01	- 1.08
All Races	10043	9956	19.06	18.38	- .84
Grade 9 - Grade 12 (Fall 1976 - Spring 1980)					
White	5077	3163	54.28	26.62	-37.69
Black	4860	3151	54.57	29.90	-35.19
Hispanic	1406	693	64.79	28.57	-50.71
All Races	11341	7006	55.70	28.29	-38.23

the number of students enrolled in the lower grade level in the base year (e.g., grade 4 in fall 1977) while the percent of students gained is relative to the number of students enrolled in the highest grade in spring 1980 (e.g., grade 6 in spring 1980). The percent change is the net percent change, relative to the base year, in enrollment in the grade-level cohort over the years studied. In all cases, except for the 9-12 cohort, the percent lost and gained is appreciably higher than the percent change. In grades 9-12 the percent of students lost is roughly twice the percent of students gained, the net result being a high percentage decrease in the number of students who began grade 9 in 1976.

These data imply considerable turnover in the District's student population over relatively short spans of years. For instance, in the 1-3 grade-level cohort, 29% of those students who began grade 1 in 1977 were no longer enrolled in the District by the end of the 1979-80 school year. On the other hand, of the grade 3 enrollment at the end of 1979-80, 35% had entered the District since fall 1977.

Attendance and Nonattendance

The percent average daily attendance, an index of the percent of District students actually in attendance on any given day, is shown by grade level in Table 5. These data were taken from the Special Reports on Pupil Achievement (Whitmore, Meier, Olson, & Marcus, 1980) where statistics are available for every school in the District. A quick glance at Table 5 reveals that while average daily attendance improved slightly this past year (1979-80) over the previous year, absenteeism continued to run in the neighborhood of ten percent, with absenteeism being somewhat higher in the District's secondary schools.

Table 5

Percent Average Daily Attendance by Grade Level

Grade	1978-79	1979-80
K	88.4	89.8
1	90.2	91.4
2	91.5	92.6
3	92.0	93.2
4	91.5	92.8
5	91.4	92.6
6	91.1	92.4
7	88.4	90.2
8	87.7	89.4
9	86.0	85.2
10	88.2	88.3
11	89.7	89.0
12	88.9	90.0
All Grades	89.5	90.5

Note. Calculated as the average daily attendance divided by the average daily membership times 100.

A different perspective of nonattendance was provided in the 1979-80 Nonattendance Study (Marcus & Julian, 1980b). In that study "nonattenders" were identified in District secondary schools as students receiving an "F" in all graded classes, and as either being absent for 15 days or more in any one class or listed as having formally dropped out of school for voluntary reasons. Thus "nonattenders" referred to all those students who for all practical reasons had dropped out of school whether they were deleted from schools' enrollment rosters or not. Excluded from the study were approximately 3,300 students who had withdrawn from the District over the summer for unknown reasons. A nonattendance index was computed for each quarter by dividing the number of nonattenders by the number of students enrolled during the quarter. These indices are displayed, by grade level, in Table 6. As can be seen, nonattendance tended to increase throughout the school year. Also there were obvious, sharp increases in the percentage of nonattenders beginning at grade 9. This increase could not be attributed simply to an increased rate of formal withdrawal due to students' reaching an age level where schooling is no longer mandated. Nevertheless, the percentages of nonattendance, especially in the high school grades, probably does reflect dropout in a more informal sense in that these students were no longer attending school.

An ethnic breakdown of nonattendance by quarter is given in Table 7. Nonattendance among Hispanic students was appreciably higher than among Black students, which in turn was somewhat higher than among White (Other) students.

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Table 6

Percent Nonattenders by Grade Level and Quarter

Grade Level	Quarter 1	Quarter 2	Quarter 3
7	1.1	1.9	3.1
8	1.4	1.5	2.6
9	9.4	12.0	15.4
10	6.4	8.7	11.4
11	5.9	8.5	11.5
12	3.3	4.9	6.0

Table 7

Percent Nonattenders by Ethnicity and Quarter

Ethnicity	Quarter 1	Quarter 2	Quarter 3
White[a]	4.1	5.7	7.9
Black	4.7	6.3	8.1
Hispanic	7.2	9.6	12.7

[a] White includes all students other than those classified as Black or Hispanic.

The nonattendance study also examined nonattendance by class period. These results are summarized, by quarter, in Table 8. Generally, nonattendance was highest for the first period and the fourth period (the period immediately following lunch). Also, nonattendance was higher during the afternoon than during the morning. Again, nonattendance increased throughout the year.

Graduate Follow-up

As in previous years, a graduate follow-up survey was conducted during 1979-80 (Marcus & Julian, 1980c). In this survey, graduates of the Class of 1979 were interviewed via telephone to obtain information relative to their educational and occupational activities since graduation. Of 7,931 graduates identified, contact was established with 6,710 (74.6%). In response to questions concerning continuing education and occupational activities, the respondents, in comparison with those of the Class of 1978, were distributed as follows:

	1978	1979
Attending College Full-time	38.7%	50.4%
Attending College Part-time	12.3%	11.1%
Attending Bus. or Tech. School	3.5%	1.9%
Employed Full-time	33.3%	29.7%
Employed Part-time	3.7%	2.1%
Unemployed	3.7%	1.5%
Military Service	3.1%	1.4%
Full-time Homemaker	1.7%	1.9%

A higher percentage of the Class of 1979 was attending college full-time, as opposed to attending part-time or attending business or technical

Table 8

Pecent Nonattendance by
Class Period and Quarter

Quarter	1	2	3	4	5	6
1	6.0	4.8	4.7	6.2	4.9	5.3
2	7.8	6.3	6.3	8.3	6.6	7.2
3	8.7	7.2	7.4	9.3	7.8	8.3

school, than was the Class of 1978. Also, fewer of the graduates in 1979 were employed (and not attending school), unemployed, or serving in the military.

A more detailed breakdown by ethnicity of the Class of 1979 respondents is provided in Table 9 where it is shown that a higher percentage of White respondents were attending college full-time while higher percentages of Black and Hispanic respondents were attending business or technical schools. Roughly equal percentages of all ethnicities were attending college part-time. The percentages of respondents employed (and not attending school) was higher among Black and Hispanic respondents than among White respondents. Black and Hispanic respondents reported a higher rate of unemployment than did Whites, however. Also, a higher percentage of Black respondents reported serving in the military.

Summary

Since this report is itself a summarization of several other reports, it is difficult to summarize it further here. Nevertheless it may be useful to recapitulate the more important highlights. These are as follows.

1. In comparison to the previous year the numbers of teachers in 1979-80 increased (by 40) in elementary schools and decreased (by 125) in secondary schools. However, the percentage distributions of teachers by sex, ethnicity, age, education, and experience did not change.

Table 9

Distribution of 1980 Graduates' Ethnicity and Major Post-graduate Activity

	White		Black		Hispanic	
	N	%	N	%	N	%
College, Full-time	1749	50.4	934	34.5	114	21.3
College, Part-time	386	11.1	321	11.9	67	12.5
Business or Tech. School	66	1.9	105	3.9	23	4.3
Employed Full-time	1028	29.7	912	33.7	256	47.9
Employed Part-time	73	2.1	107	4.0	20	3.7
Unemployed	53	1.5	180	6.6	25	4.7
Military Service	47	1.4	87	3.2	10	1.9

2. The 1979-80 pupil/teacher ratios in elementary and secondary schools declined slightly from those reported for 1978-79.
3. The numbers of teachers bilingual in Spanish increased appreciably in both elementary (14%) and secondary (12%) schools.
4. Although District enrollment has continued to decline, the rate of decline in recent years has not been as sharp as that observed in earlier years. The decline in White enrollment appeared to have leveled off in grades K-3, but continued dropping at the other grade levels. Black enrollment seems to have also leveled off while Hispanic enrollment continued to increase steadily.
5. Overall, District enrollment is projected to decrease by 6.7 percent by 1980. At that time, Blacks are expected to constitute a majority (51%) while Whites and Hispanics are each expected to comprise 24 percent of the enrollment. These projections, however, do not reflect any changes as a result of the enrollment of undocumented residents in DISD schools in 1980-81.
6. The District continued to experience a large amount of turnover in its student body. Over a three-year period the District loses and replaces as much as 30 percent of its student population.
7. Although it improved slightly over the previous year, student attendance appeared to present a problem. On any given day throughout the school year, approximately 10 percent of the students were absent. Furthermore, nonattendance (failure to attend classes at all) was high, especially in the high schools.

These and the other results contained in this report are only a few of the many results contained in the reports cited. Each of the individual reports cited provides a rich source of context information at a high level of detail. It is anticipated that administrators and other individuals wishing to gain a greater appreciation of the variegated contextual nature of the District will consult specific reports of interest.

1979-80 System-wide Context Data Reports

Berry, C. E., & Meier, J. A. Twelve-year Enrollment Trends (IR80-004-31-05), October 1980a.

Berry, C. E., & Meier, J. A. Enrollment Projections for 1980-84 (IR80-005-31-05), October 1980b.

Marcus, M. M., & Julian, E. R. 1979-80 Longitudinal Enrollment Study (IR80-008-31-10), October 1980a.

Marcus, M. M., & Julian, E. R. 1979-80 Student Nonattendance Study (IR80-006-31-10), October 1980b.

Marcus, M. M., & Julian, E. R. 1979 Graduate Follow-up Survey (IR80-007-41-10), October 1980c.

Whitmore, S. J., Meier, J. A., Olson, G. H., & Marcus, M. M. Special Report(s) on Pupil Achievement, (IR80-000-001 through IR80-000-256 (for individual schools) and IR80-000-31 through IR80-000-37 (for subdistricts and Districts), August 1980.